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MEETING

STATE OF CALIFORNIA

INTEGRATED WASTE MANAGEMENT BOARD

SINGLE STREAM COLLECTION AND RECYCLABLES WORKSHOP

JOE SERNA, JR., CALEPA BUILDING

1001 I STREET

2ND FLOOR

SIERRA HEARING AUDITORIUM

SACRAMENTO, CALIFORNIA

WEDNESDAY, APRIL 2, 2003

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PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES

BOARD MEMBERS PRESENT

Steve Jones

Michael Paparian

Cheryl Peace

STAFF

Pat Schiavo, Deputy Director

Cara Morgan, Manager

PANEL MEMBERS

Joel Corona

George Gitschel

Kevin Kodzis

Michael Meacham

Dave Ryneic

Jerry Schnitzius

Joe Sloan

Steve South

ALSO PRESENT

Mike Adams

Steven Bloom

Barbara Frierson

Brian Foran

Jim Greco

Debra Kaufman

Kevin Miller

APPEARANCES CONTINUED

ALSO PRESENT

Rose Niemi

Zane Poulson

Richard Valle

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## PROCEEDINGS

BOARD MEMBER JONES: All right, everybody.

Welcome to the -- actually, this is a Planning and Local Assistance Committee Subcommittee -- not even a Committee. It's a single stream Workshop that our Committee felt was important to have to talk about Single Stream.

But I think before I start doing that, I want people to understand that we think this is very important. We're joined by two of our board members, Ms. Cheryl Peace and Mr. Mike Paparian, in the front row who are joining us today. And I think there's representation from the other Board offices here. And we appreciate that the members are here and took time out to come to this Committee meeting -- or this workshop.

The meeting is going to be basically conducted by Mr. Pat Schiavo and Cara Morgan. They are the folks that run Planning and Local Assistance, and they will be running the show.

I want to make some introductory remarks. First off, thank you all for being here. We'd appreciate it if during the day if you've got a cell phone if you put it on vibrate just so we can keep the flow of exchange going without the interruptions.

We have assembled two panels that we think are going to be very important today. The folks on our

1 right -- or some of the folks on our right are from Chula  
2 Vista and operate that program. They're going to share  
3 that with us. Folks on the left are paper brokers, paper  
4 manufacturers, equipment and operating folks. This is not  
5 going to be a debate so much about single stream as it is  
6 a workshop talking about -- through the Board's AB 939  
7 compliance programs, we've had, I think, approximately 150  
8 SB 1066 applications. The cities and counties are asking  
9 for a little more time to reevaluate their programs to  
10 meet the ultimate mandate of AB 939. We think that's  
11 important, and we take that very seriously.

12 But of those 150, 60 jurisdictions have  
13 identified single stream as -- single stream recycling as  
14 the method that they are going to use to increase  
15 participation and increase the amount of material that is  
16 going to be taken out of the waste stream to be recycled,  
17 and we think that's very important. But we also think  
18 that it's not enough to put it into a plan and ask  
19 somebody to operate a program.

20 For those of you that were back in -- or that  
21 have memories that go back to 1989 -- actually, before  
22 that. But let's say '89, '90, '91, '92, when companies  
23 and cities were putting together curbside recycling  
24 programs for the first time, we were putting out three  
25 bins. We were collecting glass, paper, plastic. We spent

1 years trying to educate the public as to what would go  
2 into each bin. Anybody that thinks that happened  
3 overnight has come late to this process.

4 I mean, it was amazing the amount of education  
5 that had to be done to get people to understand how to do  
6 that. What's been probably the most beneficial is that  
7 citizens responded, and they became participants in really  
8 one of the biggest social changes that's happened in the  
9 state of California in a long, long time. They actually  
10 make sure that we're changing the habits when it comes to  
11 waste management throughout the state.

12 As a state we're at 48 percent diversion. This  
13 mandate does not go away. Every two years we will be  
14 evaluating every city and county to see how they are doing  
15 as far as compliance with AB 939. That being said, people  
16 are going to single stream, and a lot of folks are just  
17 hands off. They've stopped education. They've stopped  
18 code enforcement. You hear about contamination or we see  
19 contamination. In a lot of cases it's contamination  
20 because people don't know that they can't throw their  
21 regular household trash in with the recyclables.

22 In a lot of jurisdictions it works great to have  
23 three 30-gallon cans or three 60-gallon carts or whatever  
24 it is. But in other jurisdictions, some of the them  
25 specifically put out a 30-gallon cart for garbage and a

1 60- or 90-gallon cart for recyclables. We have areas in  
2 that city where once that 30-gallon can gets filled up in  
3 about two days, the rest of the garbage from the other  
4 five days ends up in the recycling bin. That's the kind  
5 of contamination that kills this system.

6           You know, in my opinion, when you've got food  
7 waste and you've got diapers and you've got every other  
8 thing that you can imagine mixed in with a stream of fiber  
9 and plastic and cans and bottles, it's that material that  
10 contaminates that paper product, that when it does  
11 eventually end up in the marketplace, it smells like  
12 garbage. It looks like garbage.

13           So my quandary was all of these cities that are  
14 asking for SB 1066 extensions and saying they're going to  
15 do single stream, if they're not managing that program and  
16 working with haulers and processors to educate the public  
17 as to what should go into those bins, and they come to us  
18 for compliance with AB 939, and they're at 40 percent,  
19 48 percent, 20 percent -- I don't care what the number  
20 is -- but their curbside program is so contaminated, how  
21 do I as one Board member vote good faith effort? I'd have  
22 a hard time voting good faith effort on that. Because  
23 it's not just identifying the program, it's managing the  
24 program.

25           So what we're hoping to achieve today is a

1 discussion about the pluses and the minuses, what the  
2 paper folks need to see. Because without single stream, I  
3 think costs to the recovery of recycling is going to go  
4 through the roof. And in tight economic times, we need to  
5 be as smart as we can to continue to move this social  
6 change, this recovery of the waste stream. We need to  
7 continue to move it. People will participate, but they  
8 need to know.

9 I'll tell you, in San Francisco -- and I have  
10 pretty good knowledge of that city. We spent years trying  
11 to make people understand how to use the three-bin system.  
12 But it was successful. Same with up and down the  
13 peninsula at my old company that I had responsibility for.  
14 We spent a lot of time on education.

15 So I'm really asking the cities and counties that  
16 are here today or on the Internet listening to really  
17 listen to the folks and hear the sorts of success stories  
18 or the types of concerns that people have so that we can  
19 end up with a system that improves the integrity of the  
20 material, opens up the marketplace for the material that's  
21 being collected in California, and ultimately will keep  
22 rates down to the citizens of California and profitability  
23 up.

24 So with that, I'm going to turn this over to  
25 Pat Schiavo. I do appreciate the other members that are

1 here. I'm probably going to leave this area and go back  
2 and sit down with them. I appreciate all of you that are  
3 here participating. I would like -- without calling out  
4 names, how many people are here representing a local  
5 government? Outstanding. That is outstanding. We  
6 absolutely appreciate your dedication or your concern to  
7 come and learn more about this and share with us your  
8 experiences.

9 How many haulers or processors? Great. Great.

10 All right, folks. Thank you all very much for  
11 joining us. And hopefully we will have a good interactive  
12 day that we end up moving the state a little bit closer to  
13 a really successful program.

14 Mr. Schiavo.

15 DEPUTY DIRECTOR SCHIAVO: Thanks, Steve.

16 Pat Schiavo, with me is Cara Morgan. We're staff  
17 to the Board, and we'll be moderating this workshop today.

18 Before we start, I'd like to mention a few very  
19 critical things. One is that there's a snack bar on the  
20 first floor that you can go to any time. And also the  
21 rest rooms, you can go out these doors, around the corner,  
22 follow the hallway around and probably have to ask  
23 questions once you get down that way. It's a long  
24 corridor.

25 The meeting, I just want to mention, is being

1 broadcast via the web, and we plan on summarizing the  
2 proceedings today, putting them on our website. And then  
3 if you also would like a copy, you can go ahead and give  
4 us a call. We'll be glad to give you a hard copy version  
5 probably over the next couple months so we do have a court  
6 reporter here.

7           When we will receive questions from you at  
8 different portions of the workshop today, Michelle  
9 Caballero has a mic. She'll be a roving reporter. And  
10 when you want to ask a question, you need to raise your  
11 hand and state your name once Michelle gets to you so that  
12 it will be on the record. And then we'll have a response  
13 depending on what the question is.

14           There should be copies of the agenda in the back  
15 of the room. If you don't have copies or if we've run  
16 out -- we probably need to have some more made up. But  
17 what we want to do today is we're going to have about a  
18 ten-minute overview by Joel Corona talking in general  
19 terms about what a single stream collection system is just  
20 to set the tone and context of the meeting.

21           And then after that, we're going to have  
22 representatives from the -- well, team representing the  
23 city of Chula Vista who's going talk about their  
24 experience of implementing a single stream program.

25           After those four speakers, then we would like to

1 open it up to questions from the audience, and then we'll  
2 take a 15-minute break after it's concluded.

3           Once we come back from break, then what we will  
4 do is Cara and I will ask some focus questions of panel  
5 members. We'd like to open it up for discussion among the  
6 panel members, whatever that question is, and then we will  
7 open it up to questions from the audience, keeping the  
8 focus on that particular question that was initiated.  
9 We'd like to keep this as focused as possible.

10           And then after we'll take a lunch break. And  
11 depending on where we are, we'll reconvene and do some  
12 more after lunch.

13           So are there any questions regarding the format?  
14 Everybody's comfortable. Great.

15           So we'd like to start off with Joel Corona.

16           And one thing, Steve generalized who our  
17 membership here is. Why don't we start from Joel and  
18 let's go across and everybody introduce themselves for the  
19 audience before we start.

20           MR. CORONA: My name is Joel Corona. I'm with  
21 Waste Management. I've been in the industry for quite a  
22 while. Had the opportunity to serve the industry and  
23 public in a number of ways as a employee, and I'm proud to  
24 be here. Thank you for the opportunity.

25           MR. MEACHAM: Good morning. My name is Mike

1 Meacham. I'm the Special Operations Manager for the City  
2 of Chula Vista. That's a fancy way of saying I'm the  
3 trash guy. I've been working on solid waste recycling  
4 there for nine years, the City of Long Beach for four  
5 years. That's the special operations part.

6 (Laughter)

7 MR. SOUTH: Good morning. My name is Steve  
8 South. I'm the Chief Operating Officer of Edco Disposal  
9 Corporation. We're a family-owned and operated company  
10 based in San Diego.

11 MR. SCHNITZIUS: Hello. My name is Jerry  
12 Schnitzius. I'm with Allied Corporation, the General  
13 Manager for San Diego representing Pacific Waste Systems.

14 BOARD MEMBER JONES: Before the next guy says  
15 anything, Joe Sloan is with us today. He's celebrating  
16 his 50th birthday today so --

17 (Applause)

18 MR. SLOAN: Most 50 year olds have gray hair.

19 (Laughter)

20 BOARD MEMBER JONES: Most 50 years olds have  
21 hair.

22 (Laughter)

23 MR. SLOAN: Thank you for that.

24 It's a happy birthday. Where would I rather be.

25 My name is Joe Sloan. I'm a consultant. Been in

1 industry about 20 years. Worked for private haulers and  
2 also one of the major publicly-owned companies.

3 Currently I spend most of my time helping cities  
4 and private haulers to design and develop collection  
5 programs, both refuse waste and green waste -- all three,  
6 refuse, green waste, and recycling collection programs and  
7 implement those programs, also the design and start up  
8 operation for recycling processing facilities. And  
9 currently I'm working on a couple of plants in the Bay  
10 Area, one in Oakland, one in San Jose, and dealing  
11 specifically with the material from the city of San Jose's  
12 new single stream program.

13 MR. KODIS: Happy birthday, Joe.

14 My name is Kevin Kodzis. I'm with Sam and Jenny.  
15 I'm a waste paper broker, and I specialize in the  
16 countries of Korea and within the last year or two it's  
17 been China. Thank you.

18 MR. GITSCHEL: Good morning. My name is George  
19 Gitschel. I'm with Rose Waste Systems. I'm an equipment  
20 distributing consulting firm and design firm that works  
21 with about 15 different manufacturers worldwide that  
22 produce recycling equipment for either single stream,  
23 commercial, or C&D operations. I've been in the industry  
24 for 22 years.

25 MR. RYNEIC: Good morning. My name's Dave

1 Ryneic. I represent Weyerhaeuser Company today. I manage  
2 all the western United States recycling operations. Our  
3 business collects recyclable material across the  
4 United States. We do about 6 million tons a year, and on  
5 the West Coast manufacturing operations which California  
6 product has a little over 2 million tons at this point  
7 mostly in OCC and ONP. Also today will represent American  
8 Paper Enforcement Association on this panel discussion.  
9 Thank you.

10 MR. SCHIAVO: Okay. Joel.

11 MR. CORONA: Great. Thanks, Pat. Again, my name  
12 is Joel. I'm with Waste Management and been in this  
13 industry for quite a while. I manage an operation --  
14 recycling operation for Waste Management in between Santa  
15 Barbara and the Northern California border.

16 I've been invited to open up this conversation  
17 and provide you how we see single stream both from the  
18 collection and processing standpoint facts, interest that  
19 we've gathered over time either through implementing  
20 programs, speaking with groups like yours, people from  
21 local government, from the environmental conservancy  
22 areas, financial areas as well as enforcement. This is  
23 the benefit of what we've learned over time, and we'll go  
24 with that.

25 Also to keep interest, to peak interest, we've

1 brought some giveaways here. These little chocolate  
2 things will be delivered solicitously or unsolicitously  
3 depending on interest levels we see rise and fall within  
4 the area. And staff and Board members may be asking  
5 questions at the end of today's event. And we purchased  
6 some books from downstairs. These are books which help  
7 fund the day care center that the Board endorses. And so  
8 some of this benefit goes to them. We encourage you to go  
9 downstairs during lunch and take a look at some also. But  
10 there will be some questions and answers at the end. You  
11 might benefit from those. There's some cool books.

12 (Thereupon an overhead presentation was  
13 presented as follows.)

14 MR. CORONA: The first slide just as an  
15 opening -- and we'll talk briefly about the state of the  
16 industry, the paradigm shift in collection and processing,  
17 the efficiencies of collection and processing, the  
18 economic and the benefits of both.

19 From the state of the industry, I think Member  
20 Jones mentioned it best, is if we spent maybe the first  
21 ten years figuring out what to do, and now we're focusing  
22 on how to do it better. We've had great improvements from  
23 technology both in the collection technology of carts and  
24 trucks and from the screening technology at our MRF  
25 plants. The type of technology we employ both at

1 collection and processing didn't much exist ten years ago.  
2 What did exist either wasn't competitive or wasn't  
3 reliable enough for us to really make those capital  
4 investments. We think the industry has come a long way in  
5 both respects.

6           From the standpoint of the processing industry,  
7 that's the paper making industry, they made great strides  
8 to improve their process as well and handle different  
9 grades of paper, make different types of paper. And I  
10 think our other colleagues on the panel will discuss that  
11 more. But technology's helped a lot.

12           Finally, we've had sustained effort. This is  
13 another concern to express and also benefit of really the  
14 Board's sustaining effort, local government sustaining  
15 effort to this cause. We've tried to keep the prices down  
16 from the standpoint of industry and the public. We  
17 realize that had we not or had we failed or had we  
18 stumbled, we may not be here today. We may not be  
19 achieving 47 percent. There were many opportunities for  
20 this truck to roll off the road, and it hadn't. We thank  
21 you all and appreciate the sustained effort in the  
22 recycling business.

23           From a paradigm shift in service, we've seen  
24 really from the beginning of the curbside collection  
25 programs -- I use this as kind of our point of starting --

1 really the residential section historic levels of having  
2 about 25 percent of the capacity that a resident has  
3 dedicated to recycling, and 75 percent dedicated to trash  
4 or disposal. And that's flip-flopped. We've seen an  
5 inversion.

6           And many communities, especially those served  
7 with single stream, have that inverted where 75 of the  
8 capacity they receive at the curbside is for recycling and  
9 25 percent for solid waste. That helps with this paradigm  
10 shift we've talked about, people really viewing solid  
11 waste or waste services as a recycling business. I think  
12 that minds have changed in the state.

13           From the commercial standpoint, we've gone from a  
14 grade-specific collection to really grade indifferent.  
15 Single stream collection from commercial businesses,  
16 commercial customers has improved, has increased a lot.  
17 It's made things easier, and participation has increased.

18           Next on collection efficiencies, we see it in  
19 these five ways. Personally, it greatly improves safety.  
20 That's driver safety. There's a number of injuries that  
21 are regular involving stooping, getting into trucks,  
22 getting out of trucks, twisting, those type of exertion  
23 areas that we want to protect our employees from. And I  
24 think the State wants to protect people from.

25           Single stream helps with that a lot. We're

1 reducing the time people are getting out of trucks, the  
2 type of movements they make. We're making it  
3 ergonomically more comfortable and more successful.

4 We're increasing the payloads on trucks. We're  
5 going up from three and four tons to six and seven tons  
6 for collection trucks. That's helping reduce drive time,  
7 keeping fewer trucks on the street, keeping their time on  
8 the street more productive.

9 Finally, we're able to optimize fleet utility. I  
10 look at this as kind of the Southwest airline strategy,  
11 where we're looking at more uniform trucks, trucks that  
12 are compaction trucks, trucks that can be used or employed  
13 either for solid waste collection, for green waste  
14 collection, recycling collection. We're looking for fewer  
15 parts to inventory, greater access to drivers who can  
16 drive a variety of types of utility trucks because it's  
17 similar trucks. And we're seeing greater uniformity in  
18 the trucks we have. So this has helped too.

19 And finally we've seen an increase in  
20 opportunities. Traditionally, and for those people in the  
21 room who have been around waste centers for a long while,  
22 the access to the higher paying jobs, those are the truck  
23 driving jobs, really came from being a helper on the back  
24 of a garbage truck. It's a very strenuous job. Not a lot  
25 of people like it, but it helps to pay the bills. We need

1 them. The very nature of that job cut a lot of access.  
2 It cut people out. It created a ceiling that was a  
3 barrier to the higher-paying jobs in the waste industry.

4 Fully automated collections, semi-automated  
5 collections, single stream collections remove that  
6 ceiling. And now we're finding people that are smaller,  
7 that have different skill sets in those trucks. And,  
8 again, it creates a higher pay scale and removes the  
9 ceiling that was there for a long while, again, by the  
10 nature of the industry and the technology also.

11 From processing efficiencies, we've really always  
12 divided it in two ways; one for MRF equipment, secondly in  
13 MRF operation. In single stream, the MRF equipment is  
14 capital intense. You're looking at between a  
15 million-and-a-half and \$3 million to get into a good  
16 single stream system. The larger the scale, the more  
17 money. But they're not inexpensive to employ. It's far  
18 from the time we were able to purchase an \$80,000 deck and  
19 sort everything we needed to sort for a community the size  
20 of 50 or 60,000 people.

21 Next we've got increased production. The capital  
22 requires it, but the equipment provides it. We've had  
23 increased production going from about a half a ton --  
24 excuse me -- about 5- or 600 pounds per person hour up to  
25 the range of about a ton and a half a person hour. So

1 we've got much greater increased production --  
2 productivity by the people that we employ at the MRFs.  
3 And this is due to the type of equipment that we have  
4 there.

5           Next -- and this is an important point -- is that  
6 the MRF equipment that we use is auto assist. It's not  
7 employer replace. In fact, for the MRFs we've converted  
8 to single stream, we've actually added people. We've not  
9 removed people. The equipment provides greater  
10 presentation to employees, makes them -- helps them become  
11 more productive and especially operate safer.

12           In the MRF operation end, again, we're talking  
13 about improved safety. We do that by improving the  
14 presentation of material to the employees. Our employees  
15 are the most valuable resource we have, as they are with  
16 the organizations you're with. We want to keep them safe.  
17 If we can improve the presentation of material to them,  
18 they can do better job, again, be more productive and  
19 operate more safely.

20           And the types of materials that are in the  
21 recycling and the solid waste are some dangerous  
22 materials. We've got a lot of sharps, a lot of needles.  
23 We're beyond the point of worrying about the baby diapers.  
24 We don't see them. There are a lot of sharps, and there's  
25 something unappealing about having an employee of yours

1 reach their hand up to their elbow in a pile they can't  
2 see that's moving past them at a rapid rate. This helps  
3 greatly.

4           We found improved flexibility in market access.  
5 These kinds of MRFs allow us to change the attitude,  
6 angle, speed of systems to either improve or market the  
7 materials to certain kinds of markets. We can react  
8 pretty quickly to market demand and market availability,  
9 again, improving access by the MRFs for material sales.

10          These increasing economies both in collection and from  
11 processing provide really the following: Much greater  
12 capacity. The material recovery facilities of the past --  
13 I'd say past ten years, generally range from 1,000 to 2-  
14 to 3,000 tons a month of material. These were more  
15 colloquial systems that had operated for a specific  
16 collection company really. And the MRFs we are seeing now  
17 and the ones that we're employing are 4- to 5- to 6- to  
18 10,000 tons a month. So their size and capacity and scale  
19 is really doubled. And this is, again, mainly due to the  
20 technology we're able to employ now.

21          Next, we're seeing much greater throughput going  
22 from about 5- or 600 pounds per person hour up to a ton to  
23 a ton-and-a-half per person hour keeping people much more  
24 productive.

25          We've seen lower incremental costs. One of the

1 things that was a large concern to the industry, and  
2 certainly you as leaders in the industry, had to do with  
3 increasing prices. What we've seen over the last  
4 ten years is prices stay relatively flat, although the  
5 level of service, the amount of service to your home and  
6 business has increased dramatically. We attribute that to  
7 trying to be smarter about what we do, looking at how we  
8 do things better and more efficiently, employing  
9 technology, and just being, again, much more efficient at  
10 what we do to keep the prices down.

11           We were concerned that if the prices went -- if  
12 the prices of services increased with the scale of the  
13 services offered that the system could collapse. People  
14 simply would reject it. And again, we're also looking at  
15 increased tons concentration. With MRFs that can handle  
16 5- to 6- to 7- to 10,000 tons a month, we're bringing  
17 materials in from greater and greater vicinities. We're  
18 trucking material a long way because we can, because it's  
19 efficient, and because we want to have that material  
20 processed at the lower cost per ton at these other  
21 facilities. So it's reduced the amount and the need for  
22 making a large number of MRFs and relying instead on a  
23 smaller number of MRFs that have greater capacity.

24           The community benefits we've seen start with the  
25 improved aesthetics for the communities. People like the

1 carts. They have in every community that I've put them  
2 in. Participation has improved. That's not only the  
3 number of people participating, but the pounds per set out  
4 had improved.

5 Again, we talked about the reduced stop time on  
6 the street by the trucks and the reduced number of trucks  
7 on the street because of the capacity they have now.

8 We mentioned the greater employment opportunity.  
9 And one of my personal visions is to see people with  
10 differences commonly be driving these trucks. There's no  
11 reason they can't. It's a very specific skill-oriented  
12 job, and it's getting much further away from power and  
13 might and brawn and much closer to the technical skills  
14 required to operate machines, computers, those kinds of  
15 things. That's a benefit. And again, most importantly to  
16 us is the improved employee safety.

17 This is one of the types of screens that we use.  
18 And one of the biggest differences you'll see in a single  
19 stream automated or automated MRF is going to be the type  
20 of screening technology they use, whether it be trammel,  
21 deck, star, slider. Screens are used to improve  
22 presentation of material by separating material by size,  
23 type, and sometimes even by subtype, by type of plastic or  
24 color of glass.

25 There's another picture of one. This is a

1 secondary screen that we use. This happens to be our Lodi  
2 plant. There's a different view of it right there. And  
3 there's a container line. By the time things hit the  
4 container line, we want to have all the large paper -- and  
5 mostly all the paper out if we can. We can improve these  
6 processes as everyone else's done.

7           These are big systems. When they go into a  
8 facility -- people have asked -- that's why I threw this  
9 slide in. They say, "Do they just wheel them in? Is it  
10 like putting together a barbecue or something?" No, it's  
11 not. It's a big deal. These are the kinds of cranes that  
12 have been established, and this happens to be our Carmel  
13 marina facility in Castroville. We've got some guests  
14 from Santa Cruz, which is our neighbor.

15           We talked about hub and spoke with the remote  
16 transfer materials. That's single stream materials. We  
17 actually in some cases closed small recycling facilities  
18 in remote areas, put in these kinds of transfer operations  
19 so that we can efficiently bring in materials to MRFs that  
20 have the equipment to process them.

21           I certainly won't go into it, but this is kind of  
22 what a site plan looks like for a modern MRF. It looks  
23 more like a factory and less like a tipping fork.

24           There's a summary of benefits again, and I'm  
25 done.

1 Are there any questions?

2 Pat.

3 DEPUTY DIRECTOR SCHIAVO: Yeah. What we'd like  
4 to do is introduce the team from Chula Vista who will give  
5 an overview of what their experiences are. And, in fact,  
6 they converted from a multi-material stream to a single  
7 stream so I'm sure there's a lot of interesting stories to  
8 tell regarding that. And then we'll have questions opened  
9 up, and then we'll take a break after the questions.

10 So Michael, would you like to start?

11 MR. MEACHAM: I guess probably what I should do  
12 is kind of give you some framework of where the city was  
13 at and where we've gone. I think what I should do is give  
14 you a little bit of a background about where the city came  
15 from, where we're at.

16 In 1990 the city started a curbside residential  
17 program for about 20,000 households. We're up to 43,000  
18 households today and growing very rapidly. The city went  
19 from about 130,000 people to 200,000 people in the last  
20 10, 12 years. And we expect to grow to 300,000 people --  
21 or approximately 300,000 people in the next decade.

22 The program that we started was a curbside manual  
23 program that provided people with an 18-gallon container  
24 and essentially started collecting newspaper, glass,  
25 aluminum, plastic, and steel. And little by little over

1 the years until the year 2001 we added some materials,  
2 like mixed paper and other containers, but we always were  
3 limited to the Number 1 and 2 plastics.

4 I have to tell you that I was not thrilled about  
5 the idea when Pacific Waste Services first came to me and  
6 said, "Let's go single stream," or, "What do you think  
7 about going single stream?" We had a good program. We  
8 had probably 2 1/2 to 3 percent contamination. We have a  
9 great contract with them which includes a lot -- I know  
10 Steve would like me to mention -- a lot of public  
11 education and particularly what we think of not only as  
12 education but enforcement.

13 We have a couple of recycling rangers that spend  
14 at least two to three hours on the route every day and  
15 cover different parts of the city and write what we call  
16 oops tags telling people what they've done right or done  
17 wrong. If they don't make that adjustment or change after  
18 three times, they get a letter from the city that warns  
19 them they can get a \$10 fine. We actually fine people if  
20 they don't do their set-outs correctly. But everybody was  
21 expected to put that recycling at 18 gallons.

22 One of the things that convinced me that single  
23 stream potentially made sense, that I had a hard time  
24 arguing with, was if people could put three or four  
25 60-gallon trash cans out and we only gave them an

1 18-gallon can for recycling, how were we going to get to  
2 50 percent. Well, that was one of the logical approaches  
3 we discussed that I really couldn't argue with.

4           It was also a concern of mine was financial as  
5 well as diversion. The city had developed and structured  
6 a very positive contract where we shared revenue above and  
7 beyond a basic value or cost for the company. And I had  
8 had a couple of years -- in a two-year period we had  
9 generated almost \$300,000 in revenue for the city that  
10 went back into public education. Again, a big part of  
11 what got us to 2 1/2 to 3 percent maximum contamination in  
12 our program.

13           But as of March of 2001 -- March 2001, we were  
14 or -- excuse me -- yes -- 2002, we were only collecting  
15 about 700 tons of recyclables from those 40- to 43,000  
16 residential single-family homes. In our particular case,  
17 that includes mobile home parks and dwellings of five  
18 units or less. We instituted the program in March, and by  
19 December of the end of that year we were collecting 1600  
20 tons of recyclables for the same 43,000 households. More  
21 than doubled the total of amount of recyclables.

22           And I have a chart which you'll see a spreadsheet  
23 at the end of our discussion you can pick up at the back  
24 of the room which has the numbers laid out. I believe our  
25 contamination has floated between 6 and 10 percent and is

1 leveling off closer to 16 percent, I think, in the long  
2 run. That, obviously, at least from our perspective, is a  
3 successful program.

4 Well, the city likes the revenue and has really  
5 helped in our public education program. It's about  
6 diversion. I know when I come to Steve and ask him for  
7 extensions and I ask the Board for time to help us get  
8 from the 42 percent we were at -- and by the way, we were  
9 going down, partly because of our growth and other issues  
10 in the city. It's an important demonstration to us to  
11 show that we're making not only that good faith effort,  
12 but getting to 50 percent.

13 So I had revenue on my side to stay with the old  
14 multiple stream program. I had nine years of public  
15 education that we'd invested in that suggested that we  
16 stay with the old program. We had a pretty good  
17 enforcement and education relationship with the community.  
18 But probably we were only diverting 25 to 30 percent of  
19 the single-family stream with -- or excuse me -- of the  
20 single-family household stream with the 18-gallon bin.

21 A big part, I think, of our success practically  
22 in this program was the cooperation and the support of  
23 Pacific Waste Services in working with our Council. We  
24 met with the Council members first.

25 I don't want to get too much in Jerry's

1 presentation.

2           We met with them individually, walked them  
3 through the program. We, of course, did a complete  
4 demonstration at a couple of our Council meetings. We did  
5 community meetings. We had eight publicized meetings that  
6 we did in different locations throughout the city. We did  
7 a number of other meetings with specialty groups like  
8 mobile home parks and mobile home park operators and  
9 property managers and groups like that that would be  
10 impacted by the program. I think that kind of outreach --  
11 not doing the program instantly -- although we did it  
12 pretty quickly in about a four-month period -- gave the  
13 people the opportunity to buy into it and also,  
14 incredibly, the flexibility.

15           Other than our recycling rangers that go out,  
16 nobody is more important in this program than the customer  
17 service representatives from the company that you're  
18 working with, their patience in making this work. I  
19 always tell people it's easier to get me to have you stop  
20 smoking than it is to properly recycle. I mean, it's an  
21 amazing change of habit and something we've worked on for  
22 nine years. The patience and the training that the  
23 customer service representatives on the Pacific Waste  
24 staff and my own staff in answering phones and working  
25 with people and helping them make adjustments made a big

1 difference.

2           Now in regards to diversion. I think one of the  
3 things that sold me on going to the program, one of the  
4 most important reasons we did it in the first place, was  
5 we had wanted, and had been negotiating with the company  
6 for, unit pricing program.

7           I know this is not a presentation about unit  
8 pricing, but I think you have to know about the successes  
9 in terms of tonnage of the program is that at the same  
10 time -- I'm sure Jerry will talk about this more -- is  
11 that we put in a program that instead of having a, you  
12 know, all-you-can-eat buffet as the Board brochure says  
13 where you can put out as much trash as you want for a  
14 single price, we went to three distinct sizes of trash  
15 cans, a 32, a 64, and a 96. People paid a rate based on  
16 the size of trash they generate. The recycling is  
17 unlimited.

18           But one of the more important things about that  
19 program is we said we would not give you a new recycling  
20 cart that was smaller than the trash cart you requested.  
21 I think was the key to our success. If you ask for a  
22 64-gallon trash can and you were going to pay that rate,  
23 you had to get at least a 64-gallon or 96-gallon recycling  
24 cart. And some people even asked for a second one. Not  
25 very many, but a few.

1 I think that that small policy about giving  
2 people that message, the extra work we did in outreach and  
3 getting to people in the community, the work that Pacific  
4 Waste services assisted city staff with in reaching the  
5 policy-makers like the Council people was critical to  
6 starting the successful program.

7 Thank you.

8 MR. SCHNITZIUS: Well, thank you, Michael. I'll  
9 pass it now to Edco because I don't have anything left to  
10 say.

11 My name is Jerry Schnitzuis. I've had the  
12 advantage of being in the industry about 33 years. And  
13 unlike most people on the Board here, I'm not from  
14 California. Shame on me. I wish I had been. But I've  
15 worked for several years in the state of Florida who's  
16 very aggressive like California, almost simultaneously  
17 became very aggressive in putting mandated recycling  
18 goals. I was involved in the first company in California  
19 to implement any kind of curbside program and a processing  
20 center at the same time.

21 Then after several years there I moved to  
22 Michigan and ran several companies in Michigan and  
23 processing centers. In Michigan just about every company  
24 we had was already on single stream. And certainly when  
25 we implemented any communities in Michigan, they were

1 single stream from the beginning. And I saw the real  
2 advantages and some of the disadvantages of single stream.

3 When I joined Pacific Waste in 2001, my first  
4 mission was to meet Michael, and the negotiations had not  
5 been going well with the city. And my mission was to get  
6 with the city and see if we could implement a single  
7 stream. Michael and I got together and through long and  
8 patient negotiations -- I feel like we're so close now. I  
9 tell him if I ever have a grandchild, he gets to be the  
10 Godfather because, I mean, we're that close.

11 MR. SOUTH: Do you want to sit together?

12 MR. SCHNITZIUE: It's extremely important in any  
13 kind of program like this the hauler and the city work  
14 extremely close. Because without that communication, the  
15 city would -- system would not work at all. We have a  
16 commercial put up behind me. Shows the kind of truck  
17 we're using, and I'll get into that in a minute.

18 But in 2001 we had a diversion program for  
19 single-family homes. We were in a three-stream setup. We  
20 were separating bottles, cans, and paper. We also had  
21 cardboard. It was all in an 18-gallon container. And  
22 most of you are aware the 18-gallon set-out -- the  
23 problems that occur with litter.

24 We had one positive. The positive was that  
25 residents had been well-educated in the recycling of

1 materials. The negatives from our standpoint was it was  
2 inconvenient for the customers to use, the recycling  
3 containers had a very limited capacity, the litter  
4 problems were a continual problem, and just overall  
5 appearance of the program was not conducive to selling the  
6 recycling as it was.

7           We set some goals for the 21st Century. Our goal  
8 was to increase the diversion from 34 percent in the city  
9 to 50, to make it much easier for the residents to use, to  
10 improve the city's appearance, safer environment for the  
11 employees and the residents, to reduce vehicle emissions.

12

13           Now I kind of throw this in here because working  
14 with the city, one of the city stipulations was, "We're  
15 not just going to recycle. You're going to have to reduce  
16 the emissions on any trucks that you bring into the city  
17 from this point forward." That then becomes a mission  
18 goal.

19           What we wanted to do with Michael's enthusiastic  
20 cooperation on this part was introduce a variable rate  
21 system, a pay-as-you-throw, as he so fondly puts it. The  
22 argument is, if I have a family of ten and you have a  
23 family of two, why should you pay the same rate as I do or  
24 I pay the same rate as you do? Because volumes in some  
25 homes were just extreme.

1           We wanted to automate the collection system to  
2 make it more efficient and safer. At the same time we  
3 selected biodiesel at the time for our emission control  
4 substance. And I'll get into in a minute.

5           Single stream recycling, the city's concerns --  
6 the revenue increased -- the processing was a real concern  
7 of Michael. He was afraid the actual increased processing  
8 cost -- and we went from an average of about \$25 to about  
9 \$45 -- was going to far exceed what we made on the  
10 material. One of our big things was I kept saying the  
11 volume will increase and offset the cost.

12           The contamination increase, Michael was very  
13 concerned about contamination in the city and so were we.  
14 That's why we looked into the type of units we chose. He  
15 was very concerned that the change -- just the change  
16 itself would confuse people and that the residents  
17 complaint was, "We just don't have room for these kinds of  
18 carts."

19           We introduced the variable rate system at the  
20 same time as we did the new recycling system. The  
21 variable rates for residents in Chula Vista, they have the  
22 choice of three sizes of containers; a 96-gallon, a 64,  
23 and a 32. As you see, the prices depend on what size you  
24 choose. The default is that if someone did not choose, we  
25 automatically gave them a 64-gallon cart for their trash

1 and a 96-gallon cart for recycling. The 96-gallon cart  
2 for recycling is automatic regardless of what cart size  
3 you choose for the trash. There is no charge for the  
4 cart.

5           It was a big thing to convince people that, yes,  
6 you do have room in your garbage. If you have two trash  
7 cans and you put them out weekly, the footprint of two  
8 96-gallon carts is really not that much greater. And we  
9 physically had to go out to a lot of homes and demonstrate  
10 this.

11           The 96-gallon blue carts, we had optional sizes  
12 of 64 or 32s. We really were against doing the 32s. We  
13 finally realized that in some applications, i.e., some of  
14 the mobile home parks, they really were space-limited.  
15 And it was senior citizens who really generated very  
16 little volume to begin with. So we've used 32, but very  
17 sparingly on the recycling.

18           They were more convenient to their residents.  
19 And, obviously, the residents love the fact they don't  
20 have to sort it. I can't tell you how many people said,  
21 "Oh, thank God, I don't have to worry about it anymore. I  
22 just throw it in there." That became a very big thing.

23           It increased the capacity. And this is one  
24 thing that even I was -- everyone on our side was just  
25 overwhelmed by. We assumed that when we put this thing

1 together, a 96-gallon cart was going to last a family of  
2 four for two weeks. We'd only see these carts about every  
3 other week when we put them in. Because 96 gallons is a  
4 lot. They're going from 18 to a 96. So the theory was  
5 we're only going to see these every other week. Depending  
6 on that, we adjusted our routes accordingly and  
7 projections.

8           The surprise was, every week. It was immediate.  
9 Every week those carts were on the curb. And in most  
10 cases -- and we've checked them thoroughly -- they're more  
11 than half full every week. And in some cases a lot of  
12 people have asked for extra recycling carts.

13           The education is absolutely the key to anything.  
14 And there's not any way I can tell you to educate too  
15 much. The only thing I will tell you that -- keep it  
16 simple. Our brochures went out, and it was a two-fold  
17 brochure. One to give them the option to choose which  
18 trash cart they want, at the same time explaining the  
19 recycling.

20           We set up meetings over a three-and-a-half-month  
21 period that Michael, myself, and Steve Miesen, the manager  
22 in Chula Vista, appeared at. And almost on a daily basis  
23 we were meeting with civic groups. We had eight appointed  
24 meetings with different parts of the city where we'd  
25 advertise to have citizens come in. We had a little dog

1 and pony show we put on. We brought the carts down to let  
2 them touch and feel. We did mailers. We did, I think,  
3 three mailers prior to delivering the first cart. We had  
4 newspaper ads every week and, of course, the telephone  
5 calls.

6 I cannot tell you, no matter what you think on  
7 your telephones, you're not going to have enough  
8 telephones. When you really start implementing this  
9 system -- we had an average of 360, 400 calls a day  
10 servicing between 43- and 44,000 homes. That went  
11 immediately to over 1500 to 2,000 calls a day. And it was  
12 an overload. It's certainly something you have to deal  
13 with. In fact, we changed some of our systems. We  
14 actually upstaffed for that.

15 What we have -- the carts obviously improve the  
16 look of the city. Improves the look of the street. We  
17 don't have the beat-up trash cans and the trash can lids  
18 flying all over the street. "What are you going to do  
19 about the wind?" That was my favorite statement. I had a  
20 guy call me and say, "What are you going to do about the  
21 wind?" But that certainly was a problem. It was  
22 eliminated.

23 You don't have the trash cans overflowing. The  
24 litter problem was ended. And we don't have the  
25 multi-colored cans, the containers that used to confuse

1 some of the drivers. Was this green? Red? Purple?  
2 Blue? They're all standard now.

3 In Chula Vista it's black for trash and it's blue  
4 for recycling.

5 The automated system we choose obviously is much  
6 safer for the employees because we don't have near the  
7 workman's comp injuries. The good thing too is now we can  
8 tell an employee, "You're good for years."

9 Believe it or not, we had a little reluctance  
10 from the drivers. Like anything, the big change was new  
11 to them. We found that the younger men worked better  
12 because they're used to the video games. They were quick  
13 on it. All the controls -- they're all air operated and  
14 very quick.

15 The container you see is called a Curatto can.  
16 We chose this system because the front itself is a  
17 front-loader truck. It can be used on a commercial  
18 service or as a residential.

19 When you hook this attachment to it, this  
20 container itself has an arm that will reach out six feet,  
21 pick up the container, bring it back. It dumps it into  
22 the container in front of the driver. The big thing about  
23 this was he sees what's going in the truck. That's where  
24 your contamination was really reduced. From the  
25 beginning, we could spot the contaminants. The drivers

1 would then tag the home. He would pull it back out and  
2 take whatever was contaminated, put it in the trash can  
3 with a tag on the cart saying, "This is not a recyclable  
4 item."

5           It was surprising to me how quickly the residents  
6 caught on. We put the containers out, and within a week  
7 of service in most cases they were in the proper places at  
8 the curb. They were facing the right direction, and there  
9 was very little contamination. We were running at about a  
10 3 percent. It did climb to about a 6 percent. But the  
11 volume itself, as Michael said, almost doubled.

12           The nice thing about it were the residents were  
13 just overjoyed. I cannot tell you how many people -- once  
14 we got it implemented, how many people would call and say,  
15 "My God, it's the greatest thing. Why didn't you do this  
16 ten years ago?" Some of them were the same people that  
17 were saying, "What are you doing to us? We don't want  
18 it."

19           We had a condominium complex that really resisted  
20 us. We had several meetings with them, and finally it was  
21 just "We will do it, and afterwards tell us what you  
22 think." They called up and the guy said, "You were  
23 totally right. It's the greatest thing that ever  
24 happened. I wish we'd done this earlier."

25           So the message here is stick to your plan. Once

1 you have it, stick to it. There's going to be some times  
2 when you're thinking, "Oh, my God. What did we get into?"

3 The variable rate trash pricing, this was an  
4 interesting scenario because when you go into this, how  
5 many people are going to choose what size cart? When  
6 you're ordering several thousand carts, what size do you  
7 order at what volume? Because you have to have 96, you  
8 have to have 32, and you have to have 64. These are not  
9 inexpensive.

10 You see our original projection. We projected  
11 that 69 percent of the people were going to have 64-gallon  
12 carts and that only 11 percent were going to have 96 or --  
13 excuse me -- 11 percent were going to have the 96.

14 As it shook out, you see on the right how close  
15 we actually came from our initial estimates. Which,  
16 happily, I can say that most people are going about the  
17 way we thought. We did have some historical data from  
18 some other cities we used that were on a variable rate  
19 system.

20 The results were the solid waste and recycling  
21 weekly average pounds per home. You see in 2002 our  
22 pounds per home on recycling was about 8 1/2. It's now  
23 16. Over 16. Pounds per home for the trash was 41 pounds  
24 a unit. That's now dropped down to 36.5.

25 The yard waste has increased a little bit. Most

1 of that we attribute to just the growth in Chula Vista.  
2 And also when we automated, we gave the city residents the  
3 option that if you choose to, you can automate your yard  
4 waste at the same time. That is an extra cost for the  
5 them. Right now we probably have 35 percent of the city  
6 that's automated their trash.

7           The emission reduction we chose was to go to a  
8 biofuel emission with an additive. The sales point to the  
9 city was rather than convert one truck at a time over the  
10 next 10 to 15 years, I'll convert the entire fleet in the  
11 next 30 days. We ran some tests. Initial tests, we hit a  
12 46 percent opacity reduction, in other words, an emission  
13 reduction. We've since raised that. We're at almost 70  
14 percent across the fleet. By just switching to the fuel,  
15 we saved 500 tons of pollution annually in the city of  
16 Chula Vista. That's on a fleet of about 35 trucks in the  
17 city. It was very significant.

18           Lastly, proceed with caution. Expect a large  
19 amount of phones calls. No matter how much public  
20 education you provide, I promise you it's not enough. It  
21 will amaze you, no matter what you do, you're going to get  
22 those calls. About 10 percent of the people are going to  
23 say, "My God, why didn't you tell me this was coming?"  
24 This was after five months of intense training.

25           The KISS system is the only way to operate. In

1 case someone didn't know the KISS, keep it simple stupid.  
2 We've got to keep it simple when you're talking to the  
3 public. Make it bullet point communications. Do not give  
4 them too much information. It just confuses them.  
5 Everything we put out was bullet points.

6 Have a good plan when you deliver your carts.  
7 That was very important to us. We implemented a route a  
8 week for eight weeks. We converted the entire city in  
9 eight weeks. Every route went in every week. At the same  
10 time we were putting the new carts in, the old route was  
11 running simultaneously for two weeks after that to get the  
12 people used to it. I can say that the conversion itself  
13 when we did the routes was just seamless. We had very  
14 little problem.

15 When it was all done, I can tell you that I'm  
16 proud to be a part of this relationship with Chula Vista.  
17 We feel like we have one of the best systems that I've  
18 ever had the pleasure to work with.

19 I will say all of this has been enhanced by the  
20 gentleman next to me on my right who, without him, I would  
21 have had a hard time negotiating this thing to begin with.  
22 That's Edco, our processor. Take it away, Steve.

23 MR. SOUTH: Thank you, Jerry.

24 My name is Steve South. As I mentioned earlier,  
25 I'm the Chief Operator of Edco. We're a family-owned and

1 operated waste collection recycling company. We're  
2 actually the largest independent in the state, and we  
3 offer a unique perspective in that we're not only a  
4 hauler, as is Jerry, we're also a processor. We don't  
5 operate any landfills. When 939 came along, we made the  
6 conscientious effort to focus on processing and get into  
7 the recycling industry.

8           And I note that there's also a number of other  
9 fine processors in the audience. I see Allen Company,  
10 who's an outstanding processor. Sunset Wastepaper in  
11 Fresno, also a fine company.

12           In the processing arena we went through some  
13 interesting dynamics because we invested heavily into the  
14 initial plants, as you can imagine, to handle the tubs --  
15 the conventional tub system that Jerry identified that the  
16 city of Chula Vista had previously been on. Those plants  
17 were built with the consumer doing most of the processing.  
18 Of course, the paper was separated. The mixed paper was  
19 typically separated, and then hard goods were separated  
20 out. So the processing that we were doing was just  
21 further refining those streams. It was rather simple in  
22 hindsight now. At the time we thought it was rather  
23 complicated and quite sophisticated, and we were very  
24 impressed with ourselves.

25           In hindsight, we realize now that the consumer

1 was doing the bulk of the work for us. The shift to  
2 single stream, though, is quite different because what  
3 happens as the participation increases, the  
4 responsibilities of the processor also significantly  
5 increases because now that material is coming in obviously  
6 commingled as a potential for a higher degree of residue  
7 and also has a potential for something I like to call  
8 reuse items rather than recycled item.

9           A lot of times a consumer tends to confuse what  
10 might be reusable with recycling and put that in the cart.  
11 Typically most of our programs don't accept engine mounts.  
12 And while that certainly is reusable, it does a great deal  
13 of damage to our processing screens and tends to shut the  
14 entire plant down. So it's somewhat problematic. But  
15 technically it is reusable. So that's something that  
16 we've had to deal with.

17           But more importantly, as with trash, recycling is  
18 a continual flow. So, again, we were operating on the tub  
19 systems. And our particular facility that serves the city  
20 of Chula Vista had been serving the city since its program  
21 originated, and it was actually serving 14 other  
22 jurisdictions. All of the jurisdictions, as you can  
23 imagine, don't wake up one day and change. As you all  
24 know, those of you with municipalities, it's a long  
25 process. You have to come to this conclusion, come to

1 this decision through a broad forum. So everybody doesn't  
2 reach that at the same time.

3           So as a processor, we had to open a second  
4 facility on the same site in order to be able to handle  
5 both streams. So as one city was perhaps on the tubs,  
6 another city was converting into the single stream. That  
7 put us in the position of operating continuing plants. So  
8 of those 14, now 10 are actually on single stream, but  
9 four still are actually on the tubs and in the process of  
10 converting. So as a processor you're dealing with not  
11 only increased capital expenditures, but operating both of  
12 the facilities at the same time.

13           From a fundamental standpoint, though, I think  
14 it's important to touch on a couple of key elements that  
15 Jerry's identified and actually Michael has. Most  
16 important, obviously, is public education. You're going  
17 to hear that again and again and again. And the thing  
18 that's important about that last comment is it needs to  
19 happen again and again and again.

20           A lot of times the discussion on public education  
21 happens just at implementation, and there's a lot of great  
22 programs that put out terrific public education in the  
23 beginning and then it disappears. I think what you find  
24 here in Chula Vista's program because Pacific Waste  
25 Services and the city involvement is continuing education.

1 And that's an absolutely critical element I would  
2 encourage you to note. If there's only one thing you hear  
3 from my presentation as a processor is that public  
4 education has to be continual. It's not at the point of  
5 delivery on the cart or the part of program  
6 implementation. It's on a continual basis. People move.  
7 People relax their standards. Things change. It becomes  
8 a reuse. You wake up one day and the engine mount ended  
9 up in the recycling container.

10 I think what you're finding here with Pacific  
11 Waste Services implementing the Curatto container gives  
12 them a little bit of an advantage because the collector's  
13 able to see what's going into the hopper. Many of the  
14 programs are not using that can, and they use a  
15 traditional automated truck. And you're actually -- that  
16 engine block is in the back of the hopper pretty quick.

17 The other thing I wanted to note was the  
18 involvement in that public education of your processor,  
19 the involvement of the hauler and city. What you see  
20 before us in the city of Chula Vista is a pretty  
21 comprehensive environment what we meet on a regular basis.  
22 We met with the hauler a number of times during the  
23 implementation. We continue to meet. We continue to  
24 discuss things.

25 And that's the type of thing that's required

1 because every once in a while you have to expect that you  
2 will have some type of unique load come in with something  
3 that you can't even imagine. And it needs to be addressed  
4 in a prompt and professional manner. And that's the type  
5 of relationship that the processor needs to have with the  
6 hauler to call and say, "Hey, there's an issue here."  
7 And, conversely, the hauler needs to have that ability  
8 with the processor. So the relationship, the  
9 communication, continuing public education, these are all  
10 very, very important elements to remember.

11           And I think the thing that I would leave you with  
12 when considering converting to any of these systems is  
13 weigh the benefits on when you're actually implementing  
14 the program. What time of year. What time of year do you  
15 implement this program because the recycling stream,  
16 little bit different than the trash stream, changes  
17 dramatically. You have increased spikes at various times  
18 of the year. When the kids are at home, you'll get a lot  
19 more recyclables. During the holidays, you'll get a lot  
20 more recyclables. Same with green waste. Green waste is  
21 a relatively unstable stream that spikes up. Right now  
22 you're seeing a lot of green waste out there. The rain,  
23 the sunshine produces a lot of green waste. It goes down  
24 at various times of the year. Recycling is the same way.

25           So plan your program around that. Good to have

1 that program in place before the holidays because you get  
2 a tremendous surge. Our plants surge like you can't  
3 believe during the holidays. Looking at a couple of  
4 processors in the room they're nodding their heads because  
5 you're hitting the ceiling with material, and it's that  
6 strong. Because a lot of the tub programs, remember,  
7 didn't always accept mixed paper. So all of a sudden  
8 mixed paper and cardboard, which are traditionally two of  
9 the commodities that were increased the most in the  
10 programs, are key elements of the holidays. And you will  
11 get significant surges at the holidays, and you want to be  
12 able to capture that for your diversion. So think about  
13 when you're implementing as well as the timing, also the  
14 timing of the other programs.

15           What you see here with Chula Vista is Chula Vista  
16 implemented trash and recycling at the same time. Some  
17 cities have chosen to implement it separately. You need  
18 to accommodate for the different thought processes and how  
19 you actually implement it.

20           I strongly encourage you to consider the program.  
21 I think it's a great program. Consumers love it. Let's  
22 keep it simple, as Jerry identified it. Let the trucks  
23 collect and the plants process. And I think you'll see a  
24 significant increase in diversion. But, again, it  
25 requires a continuing effort by the city, by the hauler,

1 by the processor to continually educate the public.

2 Thank you.

3 DEPUTY DIRECTOR SCHIAVO: Thank you very much.

4 I'd like to open up for any questions you may have  
5 regarding all four -- Michelle.

6 MR. MILLER: Yeah. I had a question.

7 BOARD MEMBER JONES: State your name, please.

8 MR. MILLER: Kevin Miller from the City of Napa.

9 We're looking at single stream, by the way. One  
10 of the things that's interesting to us is, for instance,  
11 we have a variable can rate. You implemented the variable  
12 can rate and single stream at the same time. It's hard  
13 for me to discern which is the impact of variable can rate  
14 and which is the impact of the single stream change. I  
15 wonder if you had any thoughts on that.

16 MR. SCHNITZIUS: I can tell you from my  
17 standpoint both of them had an impact. Certainly giving  
18 the larger recycling containers has a huge impact.  
19 Because people -- it's so much easier for them to put it  
20 into a 96-gallon cart.

21 But to answer your question, I think probably  
22 it's a 60/40. I think the larger cart actually was the  
23 biggest thing. The fact it's variable rate system  
24 definitely improved it.

25 MR. MEACHAM: I think Jerry's slides earlier

1 demonstrated that.

2 I think one of the things you may have noticed is  
3 that we are collecting more pounds per household now than  
4 we used to. Although the trash went down with the volume  
5 rates, the recycling by pound increased more. We're  
6 finding materials we didn't find before. Either they're  
7 things that went to a convenient zone or things that just  
8 weren't being processed. And also I think it has to do  
9 with some of the cycles in terms of the economy. But I do  
10 think that's an indicator that the larger container made a  
11 big difference.

12 I would suggest that one of the things you really  
13 consider about that larger container is that small policy  
14 I talked about, but I think it's a very important one, is  
15 making sure the people get a recycling container at least  
16 equal to the size of their trash container.

17 I briefly want to say something about public  
18 education. Jerry didn't take credit for it. Even though  
19 we rolled out in eight to ten weeks, we went back to  
20 Council several times during that period. We knew  
21 instinctively if the phone was ringing 2,000 times, you  
22 know, a day, that wasn't all positive phone calls. And we  
23 didn't leave our Council out there hanging waiting for  
24 those calls to show up at Council. We went back, I think,  
25 at least three times during that 12-week period to give

1   them an update about how things were going and address  
2   problems.  We caught people and addressed those people  
3   even at Council meetings.

4               DEPUTY DIRECTOR SCHIAVO:  Mark, I guess and  
5   then --

6               MR. WHITE:  Hi.  Mark White, Pacific Waste  
7   Consulting Group.

8               Not really focusing on the Chula Vista experience  
9   now but on your other experiences, what do you think their  
10   impact on rates are of switching from a three-bin system  
11   to automated -- or single stream system?  You know,  
12   knowing you need new trucks, but there are efficiencies  
13   and collection and all the other offsetting costs.

14              MR. SCHNITZIUS:  Going to the variable rate  
15   system -- and there has to be a lot of planning in this.  
16   One of the things is that from the beginning the city of  
17   Chula Vista obviously wanted to keep this rate neutral.  
18   How can I offer more service at the same rate and buy  
19   carts and everything else?  It was very difficult.

20              The slides you saw where we projected the cost of  
21   the containers or the cost -- I'm sorry -- the size of  
22   containers that the people would use is really what drove  
23   our pricing.  We looked at the size of the containers.  We  
24   estimated 60-plus percent for the median, and everything  
25   fluctuated off that.  We're going to lose money on the

1 lower rates. We're going to make more money on the upper  
2 rates. Here's the middle rate. How do we balance this?  
3 And where do we come out with our pricing? And it was  
4 very critical.

5           It also took a lot of time. I have to really  
6 give a lot of credit to the gentleman in front of me,  
7 Steve Miesen, who's the manager of Chula Vista. I call  
8 Steve my in-house controller because he was really  
9 diligent about getting the proper figures to do that.

10           The trucks themselves, it was the same truck  
11 whether we picked up automated or not automated. So that  
12 was not the factor. The factor was when this all rolls  
13 out, what price do we have to charge to keep a median  
14 rate?

15           In the city of Chula Vista -- another curve that  
16 Michael's thrown at me -- that the city of Chula Vista on  
17 our mean rate average has to be the lowest city in the  
18 county. And he not only wanted to implement a brand-new  
19 system and spend \$6 million doing it with clean fuel, he  
20 wanted to make sure we still didn't charge any more -- we  
21 had to be the lowest rate mean average in the county. It  
22 was a challenge, and I can tell you it just takes a lot of  
23 work. But that balance of what you saw up there is very  
24 critical.

25           MR. MEACHAM: Jerry, if I could real quick.

1 There's one thing I wanted to correct about what you said.  
2 Coming up with that number, what the costs, are worked  
3 exactly the way Jerry said. But we also had a very high  
4 premium in terms of encouraging recycling by subsidizing  
5 the rates. We had a number where we had -- Jerry had to  
6 make to break even or make profit in the company, but when  
7 you saw those 11, 14, and \$17 prices, those are set  
8 purposely, not based on cost recovery, but based on  
9 encourage recycling. That was a choice we made  
10 consciously.

11 DEPUTY DIRECTOR SCHIAVO: Up here in the white  
12 shirt.

13 MR. VALLE: Richard Valle, Tri City Recycling.

14 Two quick questions. How do you enforce a \$10  
15 fine? And secondly, did you look at CNG versus biodiesel  
16 especially given the cost of fuel these days?

17 MR. MEACHAM: How do we enforce the fine? Well,  
18 the majority of fines are -- if not all of them, are  
19 levied by city employees, not by Pacific Waste Services.  
20 If Pacific Waste Services staff finds a real tough  
21 grievance or problem on the street, they can radio or call  
22 one of our recycling rangers who can be there within a few  
23 minutes because they're running the routes.

24 But the recycling rangers write the tags. They  
25 are a part of our refuse rates. We send out the cost to

1 Pacific, and it shows up on their bill.

2           If people don't pay their bill, it becomes a lien  
3 on their property taxes, just like the regular trash bill.  
4 So that's how we enforce it.

5           But I think a couple of the key things there,  
6 like I said before, they can get up to three oops tags in  
7 any 60-day period, 90-day period, I believe, before  
8 they're fined and they get a letter from the City warning  
9 them about the fine. Any time thereafter, then they're  
10 subject to up to \$10. And we do \$3, \$5, and then a \$10  
11 fine.

12           MR. SCHNITZIUS: Second part of the question--  
13 and quite honestly this really threw me a curve because we  
14 literally sit in a room. And once we reached an agreement  
15 to do the system, we shook hands and the city manager  
16 said, "Congratulations. And, oh, by the way, I want to  
17 see CNG trucks from now on." That really caught me off  
18 guard, even though Michael had been telling me about it  
19 for months.

20           We had done extensive study using European  
21 information that Europe has gone away from CNG and into  
22 the biofuels. And I won't get into that. But looking  
23 forward, I told Michael I don't want to buy a cassette  
24 when I know CD's are coming down the road. We're very  
25 high on biofuels and the mixtures. We've had some

1 phenomenal results. I can tell you that biofuel is right  
2 now going through their carb certification.

3 But the real thing -- one of the real things was  
4 cost per truck was \$60,000 more per truck to go to CNG,  
5 plus the infrastructure of changing the entire facility  
6 for CNG well offset the cost of the rising cost of fuel  
7 and fluctuation. The CNG -- or the biofuel itself adds  
8 about 10 to 12 cents a gallon -- about 12 cents a gallon  
9 overall to the fuel costs. It is not inexpensive.  
10 However, we feel that in the future that will be the  
11 answer, certainly cost-wise, the immediate response that  
12 we got.

13 One of the big selling points we did with the  
14 biofuel was we brought two trucks in. We put a diaper  
15 over one of them over the exhaust. We ran the truck for a  
16 couple of minutes. And then we put another diaper on  
17 another exhaust with biofuel and ran it for the same  
18 amount of time and lifted them up. One was coal black and  
19 one was barely tinted. That was the significant  
20 difference, and the city loved it. And 500 tons a year.

21 MS. NIEMI: Hi. Rose Niemi with Sunset  
22 Wastepaper.

23 My question is, how did you train the customer  
24 service reps to bear the brunt of those 2,000 phone calls  
25 a day? People get so angry. People take their trash very

1 personally.

2 MR. MEACHAM: I took them a lot of muffins.

3 MR. SCHNITZIUS: I can tell you it's hardly  
4 enough training for the poor people that took the brunt of  
5 it. Michael did. He would bring ice cream and cookies to  
6 the office for the girls because they were besieged by  
7 calls.

8 We have an extensive training with our customer  
9 service reps. We added more customer service reps.

10 There's another little curve in the contract that  
11 the average time on the -- wait time on the phone can't be  
12 more than 90 seconds, which was extremely difficult when  
13 you get some long-winded customers who want to vent. And  
14 I'll be honest with you. I think we lost two or three  
15 service reps over a period of about four months. It was  
16 difficult. But I can say that the ones that survived are  
17 very happy.

18 Yeah. We brought in -- actually, there was a  
19 college -- or junior college came in and did an eight-week  
20 training course with all the service reps and our  
21 supervisors. We brought them in and had a weekly evening  
22 training course for them. And we didn't pay for the  
23 course, but we paid for them to attend the course. It was  
24 a big help, and it was purely on customer service.

25 MR. SOUTH: Let me add something to that because

1 I think you need to take into context those 2,000 calls.  
2 What the city of Chula Vista was doing was implementing  
3 automated trash and automated recycling at the same time.  
4 Recognizing that today's discussion is about single  
5 stream, there's also other opportunities where you just  
6 implement single stream by itself as a standalone. The  
7 call volume is significantly reduced.

8           Of all the programs that you will implement --  
9 and I can tell you as a collector we have implemented  
10 automated trash, automated green, automated recycling. By  
11 far, the easiest program to implement for the consumer,  
12 especially in terms of call volume, is automated  
13 recycling. The reason is for the most part everybody is  
14 getting more capacity over what they had before, and  
15 obviously the program is much simpler. So the combination  
16 is significant to the consumer. They see it as a benefit.  
17 Automated trash, especially a volume-based trash system,  
18 sometimes has a perception from the consumer to be a  
19 take-away.

20           So, again, just bear in mind that the numbers  
21 you're hearing in terms of the 2,000 calls reflect the  
22 combination of not only automated trash and automated  
23 recycling, but of volume-based system. I think that's an  
24 important thing to note. Because automated -- single  
25 stream recycling from an automated perspective of the

1 three streams in my opinion is by far the easiest to  
2 implement and as a standalone.

3 MR. CORONA: I wanted to complement Steve's  
4 comment also. The importance of preempting, being  
5 proactive about solving the problems before they  
6 originate. I think you'll have some of the greatest  
7 challenges with multi-family homes with high density  
8 housing, whether it's zero outline or condominium style.  
9 Those will be the biggest obstacles just due to space  
10 constraints. And whatever you can do to meet with HOA's  
11 preemptively and different groups that have either got  
12 very different service demands. Senior citizens, perhaps  
13 because they're not at home as much, not as great  
14 consumers, they have a smaller family at home. But those  
15 are the biggest percentage of problem calls that we had,  
16 those that had the greatest length of time on the call,  
17 and had the greatest length of time towards solution.

18 DEPUTY DIRECTOR SCHIAVO: I'd like to take one  
19 more question right now, then we'll take a 15-minute  
20 break, and then we'll play stump the panelist after the  
21 break.

22 Michelle, right here.

23 BOARD MEMBER PEACE: When you implemented the  
24 plan, you had like 4,000 calls. What are the calls now?  
25 They've gone like way, way down, I hope.

1 MR. SCHNITZIUS: Way, way down.

2 BOARD MEMBER PEACE: So that only lasts like a  
3 few months?

4 MR. SCHNITZIUS: When we started the initial  
5 advertising -- and certainly Mr. South is right. What  
6 complicated the system is we were putting two things in  
7 one variable rate and the recycling. The calls started as  
8 soon as we started the brochures about the change, and  
9 they last approximately six months.

10 The last containers were implemented, I think, in  
11 the end of April. About three weeks after that, the call  
12 volume dropped down significantly. And we're probably  
13 running about 650 a day now, which is about average which  
14 is what we expected. Now most of the calls are all  
15 positive so -- which is a good thing. And we're back to  
16 90 seconds. That was a challenge.

17 DEPUTY DIRECTOR SCHIAVO: Let's go ahead and take  
18 a 15-minute break. We'll come back and then we'll hit the  
19 second session.

20 (Thereupon a recess was taken.)

21 DEPUTY DIRECTOR SCHIAVO: Before we start with  
22 the second session, there's still a couple questions or  
23 hands that were raised in the back in the center.

24 Do you have questions you'd like to ask regarding  
25 the first presentation or anything else?

1 Michelle, right here.

2 MR. MILLER: The only other question I had was  
3 space concerns. I know, for instance, in Napa some of the  
4 older parts in town we have automated yard waste and  
5 automated trash already. So to add a third cart, I mean  
6 -- and we also ask them to keep them three feet apart on  
7 the curb, to have nine feet of curbside space without cars  
8 in front, I just don't know how it's going to work.

9 MR. SCHNITZIUS: I can tell you nine feet's  
10 pretty excessive. We try to educate the people to give us  
11 a couple of feet between them.

12 In the old part of Chula Vista, the older  
13 section, we have a real space constraint problem because  
14 there's nowhere for people to park their cars. Through  
15 all that, they have three containers, and it's worked  
16 very, very well. It's just a matter of accepting that  
17 this is something we have to do. Once people start using  
18 the program, you can really get away with about six feet  
19 of curb space. You don't need three feet between them.  
20 And sometimes you have to haul them out around the cars.

21 MR. MEACHAM: Having said that, I would say it's  
22 the exception, not a rule. I would not avoid doing a  
23 program because you're concerned about space. Steve and I  
24 and Jerry have driven the routes many, many times since  
25 the program started. And it's very impressive how well

1 the vast majority of people want to comply. It's  
2 impressive. They start parking the cars off streets.  
3 They start working around the process. It's not perfect  
4 everywhere, but it's a tremendous improvement.

5 We talked about litter and all those other kinds  
6 of things. It really is amazing how well people get into  
7 the program.

8 MR. CORONA: If I could add to that. Make sure  
9 you coordinate your cart collection days with your street  
10 sweeping days, otherwise you'll end up with a real  
11 problem.

12 DEPUTY DIRECTOR SCHIAVO: Over here, Janet.

13 MS. SCHNEIDER: Hi. I had asked this question,  
14 but I think it's worth a larger discussion. Is the  
15 difference between a market value of the materials going  
16 from -- into single stream from separated and the changes  
17 in the percentages of residual from the processing end --  
18 Janet Schneider, the Central Contra Costa Waste Authority.

19 MR. SOUTH: We had the opportunity to talk a  
20 little bit about that during the break.

21 Each program is going to be unique in the amount  
22 of residue it has. I notice several people were quite  
23 interested in the low amount of residue coming out of this  
24 program. I think it's important to understand that this  
25 program is coming -- we transitioned from a tub program

1 that it had nine years of very, very strong public  
2 education and was converting to a single stream program.  
3 There are programs out there that their very, very first  
4 recycling program was a cart. They tend to have  
5 significantly higher residue.

6 When the program is implemented also has a large  
7 impact on what the residue will be. For instance, if very  
8 first recycling program -- I'm thinking of a jurisdiction  
9 in particular that was put into that City was put in at  
10 the same time that automated trash and automated green  
11 waste was put in, and it came with a variable rate system.  
12 Their residue was much higher. People did the Seattle  
13 stomp. People hid the trash at the bottom of the  
14 recycling container. You had a lot of the conventional  
15 horror stories that you heard from a processing standpoint  
16 that created much higher residue.

17 This particular program was put in after nine  
18 years of very strong public education on a tub  
19 source-separated program, and so it allowed for very  
20 smooth transition from a processor's standpoint to single  
21 stream and produce relatively low residue.

22 With regards to the market conditions, the  
23 markets when we originally talked of single stream -- and  
24 I know Joel probably remembers this very well as well --  
25 there was quite a disparity on the grades of papers and

1 the pricing of that. And that was some years ago. That's  
2 really not as much the case anymore because the mills,  
3 much to their credit, have done a great job of adapting to  
4 the various market conditions and note that the streams  
5 themselves are evolving into more of an ONP 7, rather than  
6 the very, very clean ONP 8. They tend to either have a  
7 dirty ONP 7 or ONP 7 as opposed to the very, very clean  
8 ONP 8s that the source-separated tub programs were  
9 producing. But most of the mills have done a very good  
10 job of adapting to that.

11 And we don't typically tend to see significant  
12 differences relative to the grades. I think that the  
13 grade pricing is becoming more specific to plants and the  
14 capabilities of each respective plant, rather than  
15 conventional grades. I think the buyers are coming out  
16 more and more to each particular plant and pricing to that  
17 plant, as opposed to pricing to a grade. And that is  
18 something that you've seen happen with the advent of more  
19 and more single stream programs being implemented.

20 DEPUTY DIRECTOR SCHIAVO: Jim, what we'd like to  
21 do because we're going to go on forever and we have a  
22 number of other panelists, we'd like to comment regarding  
23 this effort -- or this workshop -- and so what I'd liked  
24 to do on the second session of this, there's still going  
25 to be a lot of opportunity for questions. And Cara and I

1 would like to -- we're going to ask some directed  
2 questions to a panel member. We'd like all the panel  
3 members then to join in, in that question to give their  
4 own perspectives regarding the question. And after the  
5 panel members have committed their comments, we'd like to  
6 open up that particular question to the audience members  
7 to follow up with additional questions. Okay.

8           And some of those we're going to touch in more  
9 detail on the contamination issues regarding the  
10 differences and the export market as well as the domestic  
11 market.

12           But to start off and because it's his birthday,  
13 we'd like to start off with Joe. First question, it's  
14 more of a general question. It opens itself up to a lot  
15 of other subquestions. And because Joe's a consultant,  
16 has been involved in a number of different communities,  
17 I'd like to find out what leads communities to even start  
18 this discussion regarding single stream as far as either  
19 changing over from multiple stream or implementing a  
20 brand-new system and starting out with a single stream?

21           And then everybody join in on this.

22           MR. SLOAN: Thank you. Pat, well, there are two  
23 primary factors that drive that. One is the fact that  
24 what Steve mentioned earlier in his opening remarks, and  
25 that is just the need to increase the amount of material

1 that's recovered and diverted from landfills. That's one  
2 of the primary things that drives it.

3           The other thing that drives it is just the  
4 reduced collection cost. I mean, this business is not a  
5 high-tech business. It's -- 40 years ago there was a big  
6 giant kind of a paradigm shift that happened in our  
7 business. It was when they put compactors on trash  
8 trucks. That dramatically reduced the collection cost.

9           What we did when we implemented the initial recycling  
10 collection programs was we went away from that. We  
11 collected everything in several different streams loose.  
12 You have someone out driving a recycling truck all day and  
13 maybe get three or four tons worth of material and a  
14 couple of loads and be able to service maybe 6-, 700  
15 households or at least that many pickups. Your collection  
16 cost was anywhere from 100 to \$300 per ton. There were a  
17 lot of variables there depending on the route density and  
18 so forth and material times. But so it was very expensive  
19 to do that.

20           And so the other factor that drove it was just  
21 cost, is the ability to be able to bring material in,  
22 compact it. And what drove the ability to do that was the  
23 evolution of this new processing equipment, some of which  
24 Joel showed you in his opening slides.

25           So it's collection cost and added additional

1 recovery.

2 DEPUTY DIRECTOR SCHIAVO: Are there any other  
3 comments regarding --

4 MR. MEACHAM: Well, for the city the big  
5 difference was diversion. We were looking at ways at the  
6 time to get from 43 to 50 percent diversion. And we  
7 wanted to -- and we believed that providing people with an  
8 incentive, making it simple, making it convenient, making  
9 it easy was going to help us make the difference. But a  
10 big part of it also was just the relationship we had with  
11 our private hauler and our processor with regards to  
12 contractors.

13 Our whole system is built on incentives and the  
14 ability for us to take this program from one level to the  
15 next. It was -- capital was mentioned. Capital intensive  
16 expensive project. Two carts for 43,000 households and  
17 trucks to provide that service costs a lot of money. I  
18 thought that this was a real unique opportunity for us and  
19 for the private hauler and for the investment needed by  
20 the materials recovery facility to make a difference and  
21 to go out and make those investments and get unit pricing,  
22 you know, and balance that with the economies of scale and  
23 the serviceability of single stream.

24 MR. CORONA: Can I add one more thing? That is  
25 that the Board's leadership over the last ten years and

1 especially over the last five has been important,  
2 especially with the programmatic changes. They weren't  
3 interested as much in the smoke and mirrors of the  
4 numbers. They wanted to see programs and actual tons  
5 diverted. And that's the kind of things that are driving  
6 these technologies and implementation of them.

7 MR. SCHNITZIUS: I want to add one thing.  
8 Somebody asked me at the break, what about commercial?

9 We focus on single stream and single-family  
10 units. But at the same time the city's put a trigger in  
11 our contract. We have to provide recycling services,  
12 services for commercial accounts for a flat rate of \$25  
13 for these containers now for the recycling.

14 And at the same time we encourage -- and the City  
15 works diligently having the rangers -- the recycling  
16 rangers working with the commercial units to get their  
17 recycling participation rates up. And certainly if I can  
18 put it in this container for \$25 and I'm paying \$200 for  
19 this one, it's kind of no-brainer. The incentive for us  
20 to do this is that once we get the participation rate to a  
21 certain level, we can then raise the rates on the  
22 commercial to meet the cost. So there's an incentive both  
23 ways, sort of. Michael's good about putting incentives in  
24 triggers.

25 MR. SLOAN: I want to confirm some numbers Jerry

1 put up earlier. I think it was Jerry or Michael. And  
2 that was in your original program I think you said you had  
3 about eight or nine pounds per household in the old  
4 basket-style program, and you doubled that whenever you  
5 went to the single stream program. I think that's pretty  
6 typical, about 100 percent increase in recovery from the  
7 curbside recycling program when you switch to the  
8 automated program, single stream program.

9 And also if you look at it and you say that on  
10 average the old-style program cost somewhere between 125  
11 to \$150 per on the collection side, you're looking at  
12 anywhere from 40 to \$80 per ton once you switch over to  
13 automated or single stream collection. So you're  
14 dramatically reducing the collection cost, and you  
15 dramatically increasing the amount of material that's  
16 recovered. So you're accomplishing two things.

17 MR. MEACHAM: Another thing we said but we  
18 probably haven't said enough, we are not the first ones to  
19 do this. This has been done in a lot of communities.  
20 People love this program. You know, they argue their --  
21 we've got tons of arguments because it's new. People  
22 going into it, you wouldn't believe how much they were  
23 going embrace it. But once they got the carts, once they  
24 had them for a few weeks, they really loved the program.  
25 You know, it was probably the only thing in my career I

1 can think of where people have actually taken the time to  
2 call us back and tell us and send letters how much they  
3 liked the program.

4 MR. GITSCHEL: I'd like to touch on something  
5 relative to this. I think this is a real mission critical  
6 area. Steve South touched on it earlier where he said  
7 there's a huge difference between what's recyclable and  
8 what's reusable. And I think it's very important that any  
9 city contemplating a program like this understand that  
10 difference. Because where you run into problems from a  
11 processing standpoint in a single stream environment is if  
12 you have this litany of items that are included in this  
13 new program in an effort to recapture a much more  
14 significant portion of the waste stream.

15 If you have 40, 50, 60 items that are included,  
16 you have to remember when those material get to the  
17 processing system, there has to be enough people or  
18 machinery to separate each one of those different  
19 commodities, store those commodities, and then package  
20 them for processing and shipment to the mills.

21 And you tend to get a lot of cross contamination  
22 in your products when you have this vast number of  
23 materials that are "recyclable" and included in the  
24 program. And you can take a whole bunch of different  
25 examples. For example, sheet film bags. If you include

1 those in your program, there's not really a clearly  
2 sustained and identifiable market for those materials.  
3 What happens is people will then take liberties and say,  
4 "Well, a sheet film bag can be the same thing as a garbage  
5 bag. And if I have a couple diapers in it or some old  
6 tomatoes or whatever and I throw that into my recyclable  
7 stream, they'll deal with it at the processing system."

8           What happens is when that comes in, any of that  
9 cross contamination that gets on the fiber stays on the  
10 fiber. Even if you use a screen to agitate it, you knock  
11 off all of the physical evidence, the bacteria's still on  
12 the paper. When you bail that up, put it on ocean liner  
13 for 30 days in the hot sun, by the time they open it at  
14 the end in China or Korea, it smells like dead bodies,  
15 whether it's all clean paper or not.

16           I think it's something very, very important that  
17 the cities have to look very closely and work with the  
18 recyclers and the haulers to know what kind of markets  
19 exist for the materials they have and what should be  
20 included in the program. And keep it real simple.

21           MS. MORGAN: George, that's a perfect segue into  
22 the next question.

23           Chula Vista, I think, did a great job on  
24 addressing how they designed their system up front to  
25 reduce contamination. They addressed education, ensuring

1 that the container size for trash was at least equal to  
2 that of recycling.

3 This question I want to first throw over to Joe  
4 and George and then have Joel follow up and the rest of  
5 the panel members is how do you design a system up front  
6 to reduce contamination?

7 And, George, maybe you want to follow up on that  
8 to start.

9 MR. GITSCHEL: Again, I think it's a matter of  
10 communication. And as a city, if you're looking into a  
11 program like this, it's important to get your hauling  
12 company -- and if they're going to be doing the processing  
13 as well, get them involved and get whatever vendors they  
14 might be working with involved in doing a joint  
15 engineering discussion and placement discussion on what  
16 kind of machinery will be needed given the types of items  
17 that the city wants to include in this.

18 And there's another thing that's critical, which  
19 Steve mentioned time and time again, which is the  
20 educational process. You have to do this on a continual  
21 basis to make sure that the cities educate their consumers  
22 and police what goes into these containers because there  
23 is a certain amount of drop off that happens over time  
24 where people get lazy, they take advantage of programs,  
25 especially in situations where you have a charge for the

1 garbage and no charge for recyclable.

2           If there's an economically-challenged area within  
3 a certain community, it's going to be human nature to say,  
4 "Give me the smallest least expensive garbage container  
5 and the largest recyclable container I can get, and  
6 whatever's left over from a trash perspective I'll hide in  
7 the recyclables." Well, that causes a whole host of  
8 problems when it comes to the processing.

9           So I think it's really important that everybody's  
10 realistic about this and that we're not just trying to go  
11 for some pie in the sky, incredibly unattainable goal of  
12 saying 60 or 70 percent of the waste stream can be  
13 recyclable.

14           Let's look at what the recycler or what the  
15 processor or what the hauling company is doing on all  
16 three of those things has gone as far as markets are  
17 concerned where they can sit down with the city people and  
18 say, "Look, we have a good market for clean Number 7 ONP.  
19 We've got a good market 1 through 3 plastic. We've got a  
20 good market for aluminum and tin. We've got a good market  
21 for glass. So we'd like to include those things in the  
22 program. And we can design a system around being able to  
23 process those things in an efficient cost-effective  
24 manner." Because when you start introducing all those  
25 other products, the cost of processing and sorting goes up

1 exponentially.

2 MR. SCHNITZIUS: I want to add when we were doing  
3 our public meetings, a lot of people came to us and --  
4 "Why don't you take this" or "Why don't you take that?"  
5 One of them was styrofoam. "Why don't you take styrofoam?  
6 I heard they recycle styrofoam." That's where you have to  
7 set the limits and explain to people you can only recycle  
8 what you have markets for.

9 I was involved in a program in South Florida that  
10 recycled styrofoam. They had the largest bails of  
11 styrofoam that weighed nine pounds that you've ever seen.  
12 But there were no markets for styrofoam. The only market  
13 we knew about was somewhere in Northern California at one  
14 time. And shipping styrofoam from Florida to California  
15 hardly seemed worth it. And because of that, a lot of  
16 that program failed.

17 So from the beginning, I echo, you work with the  
18 processor first and then you go and say this is what we're  
19 going to recycle because this is what we can market.  
20 That's key.

21 MS. MORGAN: Joe.

22 MR. SLOAN: Yeah. I think I was involved in the  
23 same program, those nine pound bails. And it was a  
24 great -- everybody had good intentions. But it was a  
25 horrible failure.

1           And we actually did a calculation on that. That  
2 material, you could get about \$20 a ton for it, if you  
3 could accumulate a ton. And it's cost will be \$1,500 per  
4 ton to collect it, process it, and prepare it for market.  
5 So it didn't make a lot of sense.

6           I want to echo something George said here. As an  
7 operator -- and that's a lot of what I spend my time doing  
8 is start-up management on material recovery facilities.  
9 These are -- here's an example of items that we get. I  
10 think Steve mentioned some motor mounts that he got.  
11 There he is. Motor mounts. Steve mentioned motor mounts.  
12 These are things I've seen in the last couple years in  
13 numerous plants that I've operated that have gone to  
14 single stream programs; engine blocks, various auto parts.  
15 Get a lot of carburetors. Auto batteries, propane, and  
16 helium canisters.

17           You know why we get helium canisters? Have you  
18 had a birthday party where you bought one of those  
19 disposal things? What does it say on it? It says  
20 "recyclable." In fact, a lot of them say "place in your  
21 curbside recycling container." Go ahead and do that.  
22 They'll blow up if you put them in a compactor.

23           You get helium containers, appliances. You get  
24 structural steel, wheels off -- car wheels. I got a  
25 motorcycle about a month ago. I got a motorcycle.

1 Actually, with all the car parts and that motorcycle we  
2 thought we might build a hot rod or something.

3 Mattresses. We've gotten twin mattresses. I  
4 don't know how somebody can actually stuff that inside  
5 their container, but we've gotten mattresses. A lot of  
6 wet garbage, food, and diapers. That's the product of  
7 what George mentioned earlier.

8 And I think the key to success in the program  
9 that Michael and Jerry mentioned earlier on the collection  
10 side. It's -- I think the variable can rate  
11 pay-as-you-throw is a wonderful idea, and I think that it  
12 works and it's just. But at the same time it will create  
13 an incredible amount of contamination on the recycling  
14 program if you don't have the enforcement and the  
15 education that they talked about.

16 If you don't have people out there that are  
17 looking at the stuff because -- plus, the other thing is  
18 you've got a very unusual collection system. Most single  
19 stream collections are side-loaders that the driver can  
20 never see what's going in the container. Their collection  
21 method allows that driver to be able to look and see the  
22 material that he's dumping. So he knows if he's got a  
23 problem residence or problem material. That's not  
24 typical. So those factors have combined to help that  
25 program be successful.

1           If you don't have the enforcement, if you don't  
2 have the ability for your code enforcement -- what did you  
3 call them, Mike?

4           MR. MEACHAM: Recycling rangers.

5           MR. SLOAN: Recycling rangers to go out there and  
6 enforce that, I think you've got a problem on the  
7 contamination side.

8           Also we get green waste, wood waste, tires,  
9 chains. Chains do wonderful things for your screens.  
10 Chains get into the screens and wrap up. You could be  
11 down for half a day because somebody said, "They take  
12 steel in the recycling program. This chain's steel." So  
13 they throw it in there, and it wraps up in your machinery.

14          Electrical cords and sharps. You mentioned  
15 sharps earlier. Are needles recyclable? Yeah,  
16 technically they are. But you sure don't like to see them  
17 coming down a recycling line buried in a bunch of  
18 newspaper where somebody's trying to pull it off by hand.  
19 So there's a whole lot of education that has to go on  
20 there.

21          MR. GITSCHEL: Three days ago they actually got a  
22 full deer.

23          MR. SLOAN: Yes, a deer.

24          MR. KODIS: I'd like to say something on the  
25 items Joe just mentioned. Waste actually picks up my

1 garbage in the county of Santa Ana.

2 Joe, you'll like this story.

3 Thanksgiving I ran out of room in my recycling  
4 bin -- sorry -- my garbage bin. I ended up throwing my  
5 turkey carcass in the recycling bin. What ended up  
6 happening about two months later is I get a claim in China  
7 for garbage in a container.

8 And all those items that Joe -- and this is  
9 really serious. China is known as just a dumping ground  
10 at this point. We've changed all the difference of  
11 grades. Instead of being Number 8 news -- if you guys  
12 know your grades of paper. Number 8 news which should be  
13 just news off the curbside, three years ago that was the  
14 standard. Now we've gone to a 7-8.

15 And if you look at the -- what you guys just  
16 showed up on the items that you can take -- well,  
17 actually, we only ship like three of those items. It's  
18 either Number 7-8 news, corrugated mixed paper, maybe some  
19 office pack from some commercial accounts. The problem at  
20 this point, especially with China, no other country will  
21 take Number 7-8 grades, meaning Korea. Korea will only  
22 take one grade. That's Number 8. They can't handle --  
23 number one, they can't sort it because it's westernized  
24 country. But China has made a law it's outlawed in China  
25 to send garbage. I had 40 containers sitting in the port

1 that were going to come back here. And legally I would  
2 have been held responsible for them. We worked it out.  
3 But as time goes on, China's not going to be considered a  
4 dumping ground.

5           And it doesn't usually happen with the 7-8 news.  
6 It happens with the mixed paper. If you don't have the  
7 policing like you guys have -- that is essential. You  
8 don't have that, you're dead. I've been where Joe's had  
9 plants -- and I've had claims with Joe's stuff because  
10 it's -- the system on how things are processed have gone  
11 from a positive sort where you positively take good stuff  
12 out and the bad stuff goes out. Now we're at a point  
13 where what you're doing, you're pulling out the garbage  
14 and letting everything run.

15           If you've ever been on a recycling belt, that  
16 stuff is going so fast that you can't -- you're getting  
17 plastics in there. And shrink wrap is absolutely useless  
18 after it's been dirty. You can't do anything with it.

19           What ends up happening is the container gets  
20 overseas, gets into Shanghai. They'll open up the  
21 container, and they'll notice there's some trash in there.  
22 They immediately say, "Well, if there's a little trash on  
23 the outside of the container, it's got to be all through  
24 it. We're claiming the container. We're going to wait  
25 until you take it over to Shanghai. And Shanghai's not a

1 great place in middle of August. It's awful. So they're  
2 cutting down on it. So, no. It's not going to be a  
3 dumping ground. And China -- thank God for China right  
4 now because the mills of the United States are really --  
5 these mills are -- they're closing. And China really at  
6 this point is probably our largest consumer of wastepaper.  
7 And it's probably doubled -- tripled in the last year. So  
8 it's really important if garbage is going through -- and  
9 if I had my way, I'd rather have, you know, a larger  
10 garbage bin and a small recycling bin.

11           The other thing I always kind of worry about is  
12 we're getting the percentages up, but what's the residual  
13 going up in the recycling? Is it going up 10 percent?  
14 20 percent? And then we're claiming that's actually  
15 going -- not going to the landfill. The recycler's the  
16 one to suck it up. After -- what's the trash bill at your  
17 place, Joe? Does it go up or come down?

18           MR. SLOAN: No. We get a pretty significant  
19 trash bill.

20           I just want to clarify something that Kevin's  
21 saying. That is, the material -- if you go and look at  
22 the bails from most single stream recycling plants -- if  
23 you look at the bails, they look like they're all fiber.  
24 They may have some intermittent film plastic bags in them,  
25 which most mills can deal with, unless it's just really

1 contaminated with film plastic bags. But generally  
2 speaking, with the screening technology you get all fiber  
3 in the bails.

4 But the big issue is if you've got a program  
5 where people have not been educated or maybe they just  
6 don't care about what they put in their recycling bin --  
7 if it's like Kevin putting a turkey carcass in his, or,  
8 you know, tomato paste or baby diapers or yard waste or  
9 anything else, once that material has been compacted on  
10 the route, it comes into a recycling facility, goes  
11 through a whole process before it ends up getting bailed.  
12 That stuff, after it goes through that transportation  
13 costs that Kevin described, ends up overseas and it smells  
14 like garbage, whether it looks like it or not. And that's  
15 the issue.

16 MR. MEACHAM: I wanted to mention a couple of  
17 other components that make the Chula Vista program  
18 successful because of Pacific Waste and Edco. A couple of  
19 things. I don't know about the turkey carcass, but the  
20 metals at least are a real opportunity. When my residents  
21 are putting contaminants in the recycling container that  
22 have the potential to be recycled, I see that as an  
23 opportunity. These are people that want to recycle.  
24 They're trying to do the right thing.

25 Pacific Waste Services provides weekly bulky

1 pick-up. Maybe weekly bulky pick-up might be extreme for  
2 some places. But they do a separate metals truck, and we  
3 take engine blocks and stuff like that. And we give them  
4 a convenient reasonable alternative.

5 Another thing is we happen to have a landfill in  
6 our community. And Edco -- excuse me -- Pacific's parent  
7 company, Allied, is building a recycling center at the  
8 landfill as part of our contract and part of their own  
9 experience and needs. And we provide two annual passes to  
10 landfills where people will separate metals and concrete  
11 and asphalt and all the other kinds of things that show  
12 up.

13 You have to have reasonable convenient  
14 cost-effective alternatives to these things. You can't  
15 ignore that people need to either properly dispose or  
16 recycle these items or they will show up in your  
17 recycling.

18 BOARD MEMBER JONES: Michael, do you end up  
19 letting the public know that, in fact, we'll give you  
20 another opportunity to recycle that material because we  
21 don't want it in this single stream can?

22 MR. MEACHAM: Absolutely. That's a big part of  
23 what the recycling rangers do. It's a big part of what  
24 you'll see in our brochure that'll be at the back of the  
25 room. It's a big part of the customer service

1 representatives and our own staff and the city that get  
2 out to the public and all those things, going to schools,  
3 going to public events, and all that presentation that we  
4 do.

5           Again, we've just -- you know, we apply for  
6 grants from the Waste Board for things like household  
7 hazardous waste. We just added sharps about a  
8 month-and-a-half ago. We do that on a regional basis  
9 because it's not always cost effective on a city by city  
10 basis. But you have to take advantages of those things  
11 and provide at least on a regional basis the convenient  
12 cost-effective opportunity for people to do the right  
13 thing and they will.

14           BOARD MEMBER JONES: One of the things that's  
15 intriguing me about this part of the discussion, and it's  
16 one of the reasons we're having this workshop, is that  
17 I've gone into MRFs, and I've gone into MRFs with city and  
18 county staff. And I've walked out around the outside and  
19 I've seen tennis shoes. I've seen film plastic. I've  
20 seen four guys crawling into disc screens pulling out  
21 plastic and cussing out everybody in the world. And I  
22 asked the staff -- I'll ask the county staff, "Why do you  
23 take that?" "Well, it's recyclable." "Well, yeah, it's  
24 recyclable. But its just stopped your whole system for  
25 the next 30 minutes."

1           So I think at some point the paper brokers -- and  
2 we're going to hear from David in a minute about the  
3 acceptor. One thing you really need to understand -- and  
4 I think Kevin said it best. For years and years -- and  
5 I'm going back to the turn of the century. Recycling is  
6 not new. Scavengers did that stuff, commingled, and then  
7 separated it on an open truck or open wagon and delivered  
8 it to the plants. Today we can't afford to do that.

9           But if you look at the price that the companies  
10 are getting paid for recovered material today and look at  
11 what it was 40 years ago, you ain't going to see a  
12 difference. It's not going up. So while county and city  
13 staff will always sit and try to figure out how's the best  
14 way to keep the price down to the residents, part of  
15 what's got to come out of today is a discussion about  
16 understanding what actually makes sense to get into that  
17 system to optimize the efficiencies because -- I think  
18 it's great that you offer another system for metal. I'm  
19 sure Joe would love that whoever's delivering to him would  
20 offer the same thing in their jurisdiction. But if he's  
21 walking down his facility and the city staff is going, "We  
22 don't see a problem with that. It's recyclable. We don't  
23 see that a problem with that. That's recyclable." That's  
24 a failed program. And that's exactly what I was talking  
25 about in my opening remarks. I'll look at that as a

1 failed program.

2 MR. SCHNITZIUS: One thing I want to say. We  
3 talked about keep it simple. When we were out of in the  
4 public and people will ask you, "Well, this is plastic.  
5 Is plastic recyclable? What kinds of plastic are  
6 recyclable?" And I can testify having run some  
7 processing plants, film plastics going across screens do  
8 nothing but destroy the screens, eat up the bearings, get  
9 wrapped up. It's terrible. And I tell people if you  
10 really don't know, then if it doesn't have a screw top on  
11 it, don't recycle it. Because just about every recyclable  
12 plastic product has a screw top on it. And it's keep it  
13 simple. If it comes in a bag and it's plastic, don't  
14 recycle it, period.

15 DEPUTY DIRECTOR SCHIAVO: I'd like to ask a  
16 question of Dave regarding what have you seen historically  
17 regarding contamination? Now since we're going more and  
18 more to single stream, what do you currently see?

19 And then Kevin can add in any more if you'd like  
20 to on the export.

21 And then what we'd like to do is focus on George  
22 and how technology is addressing some of those issues.

23 MR. RYNEIC: I guess I can tell my story first  
24 about contamination. We had -- and this is real stuff in  
25 mills now. I'm going to try to focus on mills. We had a

1 platen face, a bailer -- a bailer platen is a big piece of  
2 steel about a half-inch thick that compresses the bail.  
3 And somebody in their production facility lost that in a  
4 bail of OCC. And, of course, it went right through. They  
5 bailed it out. Shipped it. And we found it at our mill  
6 in Springfield, Oregon. It cost us little over \$100,000  
7 in down time and fixing stuff. It's very expensive when  
8 you have contamination. That's just one big item that  
9 came through.

10 I want to say a couple things about quality of  
11 paper. And first I want to say quantity. Quantity of  
12 recyclable paper is very, very important to us. Very  
13 important to our industry. We at AF and PA this year are  
14 setting a new goal for recovery at 55 percent of all  
15 paper. We're at about 48.2 right now. And that's due to  
16 probably a lot of single stream programs that are coming  
17 on line and helping the residential collections.

18 But quantity is very important. We want more  
19 quantity. We need more quantity. The export consumers  
20 are increasing in their need of North American paper.  
21 They like our paper. And we also need more in all of our  
22 mills domestically as we grow. And that's all I want to  
23 say about quantity.

24 Quality is obviously why I'm sitting here today.  
25 The quality of paper coming into our mills today has an

1 increased volume of what I call prohibitives. And as you  
2 grade paper or talk about paper coming into a facility,  
3 there's three things that happen. One is you have a  
4 grade -- and let's just talk about newsprints. Call it  
5 clean. Two is you have an out throw which is something  
6 other than newsprint, but it's paper that is in that. All  
7 right. And then three is you have a prohibitive which is  
8 something other than paper, whether it's engine blocks,  
9 concrete, asphalt, glass, aluminum, cans, all that stuff  
10 is there, including film. Okay. And that is a bigger and  
11 bigger item for us to deal with.

12 In the past years we could deal with maybe a term  
13 like -- something like solution to pollution is dilution.  
14 And if you had 80 or 90 percent very specific sorting  
15 activities going on, material coming into your mill and  
16 you had 10 percent that was sort of contaminated beyond  
17 what you really want, you'd mix those two together and  
18 you'd probably do all right in making your product.

19 I think today as we talk about single stream, we  
20 have some projections. Some of the major waste haulers  
21 are talking 80 percent single stream in the next five  
22 years. We're going to see those tables turn, and we're  
23 going to see more and more contaminated material coming  
24 into our mills and less and less clean material. And  
25 we're not going to be doing the mix that we do today in

1 the mills.

2           And it's very important for us to be concerned  
3 about the sorting equipment that we're putting in. If  
4 you're thinking of putting in programs or thinking of  
5 going in and how we're going to get that material sorted  
6 to where the mills can actually use that material, if they  
7 get 90 percent single stream coming into their facility  
8 right now, that's very problematic. A lot of mills have  
9 put in technology for screening. They're getting the  
10 material out. It's costing them a lot of money.

11           A couple pieces of data that I have is -- one is  
12 Southeast Paper, which is an organization out of Georgia  
13 that recently purchased the Smurfit Mill in Oregon. And  
14 they gave me some numbers. And they said it costs them  
15 roughly a dollar a ton to handle the contamination they  
16 get in their material. This is a newsprint organization  
17 doing the ONP 7-8, ONP 8, ONP 9 or virgin newsprint. And  
18 of that contamination they're saying it's 50,000 tons a  
19 year that they clean out of their screens. And half of  
20 it's glass and half of it's containers on average. So  
21 that's real stuff. That's what's ending up now in the  
22 pure newsprint mill at a number of mills across the  
23 United States. And we're very concerned with the advent  
24 of single stream recycling on the West Coast, although  
25 there is quite a bit of single stream going on right now.

1           We have at a Weyerhaeuser Plant in Long View,  
2   which is a newsprint mill, buyer of paper from California  
3   and seller of newsprint in the California system, they  
4   gave me a couple of pieces of data. They said each day we  
5   currently remove approximately 1,000 to 1200 pounds of  
6   glass on a daily basis. And they're about a 600-ton-a-day  
7   mill. They've increased their wear rates on their  
8   screens. They used to change screens approximately once a  
9   year -- or I'm sorry -- every two to two-and-a-half years.  
10   Now we're changing them once a year.

11           It's an added cost to them. And they're finding  
12   that their failure rates on conveyers are increasing and  
13   they're spending about \$80,000 a year in increased  
14   maintenance. A lot of this has to do with glass shard.  
15   They're also concerned about exposure to glass shards to  
16   employees working around conveyers and those areas.

17           So glass is -- end up to be a big item here for  
18   us. And it is a prohibitive. As I said, as prohibitives  
19   increase in that bail of paper that we're producing, the  
20   more and more problems the mills are going to have with  
21   that and the more increase in costs we're going to have.

22           We had an interesting customer complaint out of  
23   Japan not too long ago. They're printing a Wall Street  
24   Journal in Japan and advertisers are complaining about  
25   spots on the paper. And so we tried to figure out where

1 this was coming from. We've been talking about the film  
2 plastic. And we thought it was film plastic. We thought  
3 that's what was going through the screens and heading into  
4 this print process. Well, it wasn't. It was other types  
5 of plastic that were much harder and were able to keep  
6 their shape and not disappear. But it's that type of  
7 customer complaints that we do see. We do hear that. We  
8 do work on that. But it's items like non-fiber --  
9 non-fiber items that are in that paper that we've got to  
10 be very concerned about.

11           And I think as you go forth and you talk about  
12 putting together single stream programs, you really want  
13 to make sure that you're going to produce a product -- I  
14 think somebody said it. You work with that processor to  
15 find out exactly what their markets are, what kind of  
16 quality they think they can put into that market, and will  
17 the market be able to sustain us over the long haul.

18           Because you're making the investment in single  
19 stream at a time when the mills still have options. If we  
20 go all single stream -- and I'm not just talking  
21 California. If we go all single stream, the mills are  
22 going to have less options. And if we can't make paper  
23 out of recycled paper, they're going to go back to  
24 something else. So our object here is to keep the  
25 recycled paper used, keep it in the mills, keep them using

1 it, and get in there the best quality we can.

2 It's a battle. It's a real battle. And I just  
3 wanted -- I gave you some data. There's more data than  
4 that. But I think that's what I want to say about quality  
5 right now as we go forward with single stream.

6 DEPUTY DIRECTOR SCHIAVO: Kevin, from the export  
7 perspective do you want to follow up?

8 MR. KODIS: I think I made my point on mixed  
9 paper.

10 The greatest thing with China right now is it's  
11 extremely cheap to sort. That's how we're all getting  
12 away with sending in 7-8 news. I think that's what you  
13 want. It gets a lot of post office -- makes a lot of junk  
14 mail and stuff like that.

15 If ever you have a chance to go to China to see  
16 it, they've got thousands of people sorting. It doesn't  
17 cost them anything. We could never live by doing that in  
18 the United States, but in China just -- it's chewing it  
19 up. As much as you can get you can -- it's just  
20 incredible.

21 So with OCC Number 11 cardboard is just no end to  
22 the supply for that. Number 7-8 news, same thing. You  
23 can get as much as you want into China. Mixed paper, it's  
24 going to be an issue. It started being an issue for the  
25 last six months. If there's any more garbage in it,

1 they're going to shut off that grade. And they'll be  
2 serious about it. They'll shut off the grade. So the  
3 systems just have to make sure that anything that's going  
4 through on the screens will be taken care of. If there's  
5 wet material in there, it's just -- wet materials --  
6 papers absorb it. It's going to absorb everything. So  
7 those are the things that really have to be worked on or  
8 that's going to be a big issue.

9           The only thing we don't have to worry about is  
10 if -- Japan was a big consumer of wastepaper 10 years ago.  
11 Taiwan was a big consumer. Korea was a big consumer. If  
12 you've noticed in the last 10 years, 15 years, they're  
13 gone. They're out. And the biggest reason is because  
14 they've westernized. We're talking about a communist  
15 country. They do things different. Things that make  
16 sense to us don't make sense in China. And there's a  
17 lot -- it's a different way of doing business.

18           But the good news is their labor is extremely  
19 cheap. But I'll say it again, garbage is illegal to be  
20 shipping. If you ship pallets into China, they have to  
21 fumigate the container before it actually goes in there.  
22 So things that you just have to be careful of.

23           I think the equipment is so much better the last  
24 three years than it ever was.

25           So, George, keep on making good equipment.

1           DEPUTY DIRECTOR SCHIAVO:  George, you want to  
2 follow up as far as technology.

3           MR. GITSCHEL:  I'd just like to give everybody a  
4 thumbnail sketch of the evolution of the technology that's  
5 really enabled the single stream to take hold.

6           In essence, ten years ago this technology didn't  
7 exist.  And what haulers were doing was that they were  
8 picking up material.  They were bringing it to a facility.  
9 They typically have an in-feed conveyor with maybe an  
10 elevated conveyor where they had a platform around it and  
11 bunkers underneath it and a whole bunch of sorters out  
12 there picking off different materials.

13          As we said earlier in this meeting, when they  
14 first started out, the customer or the resident was doing  
15 most of the work in separating all the different  
16 materials.  All they were doing at the material recovery  
17 facilities was grading it and making sure they were  
18 getting the contaminants out.  That was a fairly easy  
19 thing to do.

20          What has enabled us to change that and reduce all  
21 the other costs associated with the collection process --  
22 at the same time we're able to reduce the costs associated  
23 with the processing process.  And the way we've been able  
24 to do that primarily is through the introduction of this  
25 new technology which is primarily in the form of screens.

1 And these are disc screens for the most part. There's  
2 several different manufacturers that produce these things.  
3 And, in essence, what they are is they have a shaft -- or  
4 series of shafts along a fixed frame that rotate at  
5 varying rates of speed. They have rubber disc on them.  
6 What these things do is they naturally separate the fiber  
7 from the containers.

8           So in essence what we've been able to do is to  
9 eliminate the labor associated with manually picking the  
10 fiber away from the container when everything is  
11 commingled.

12           We also use magnetics and things like eddie  
13 current technology which is a repelling force for  
14 nonferrous materials like aluminum cans. It will pitch  
15 those away from everything else that's left on there. And  
16 they can use a whole series of different type of screens  
17 to separate by particle size.

18           These things are machines. They don't know the  
19 difference between a piece of newspaper or a plastic bag  
20 that's the same size. And, in essence, what happens is  
21 when all that material comes into the facility, it's  
22 pushed onto a conveyor. It goes up to a sorting platform  
23 where they do what's called pre-sorting. On the  
24 pre-sorting platform they're picking out large items and  
25 contaminants like cardboard boxes. They have screens that

1 will pick those out mechanically. But if they don't have  
2 that, they'll manually pick out the cardboard boxes.  
3 They'll pull out pieces of steel or other types of  
4 residue, plastic bags, phone books, things of this nature  
5 that the screen won't separate.

6           And then everything then gets dumped onto the  
7 screen. And you pull off newspaper first and then the  
8 cans and the bottles. And the smaller pieces of paper  
9 fall back or through and then go to another screen where  
10 they pull off the 8 1/2 by 11, the newspaper size paper,  
11 and hit another screen that'll separate the 2 1/2 inch  
12 minus which is mixed broken glass, small items, and then  
13 cans and other pieces of -- larger pieces of paper.

14           And then all that stuff goes to what's called a  
15 post-sort area, which is another platform that has several  
16 employees on it that they will grade that material. So  
17 all the newspaper coming off the screen, they'll have  
18 employees there at this processing facility to physically  
19 pick out any cans or bottles that may have made it over  
20 the top of the screen or any other residue, like plastic  
21 bags, that makes it over the top of the screens. Then  
22 when everything falls off the end of the conveyor, it's  
23 typically clean material.

24           But, again, if there's garbage introduced to this  
25 and the paper absorbs it once it's compacted in the truck

1 and transported around the city and gets dumped at the  
2 facility, that garbage bacteria will stay on the paper by  
3 the time it gets to China or some place domestically.  
4 Because typically what will happen is once all that stuff  
5 goes through the sorting process, it's stored in bunkers.  
6 And then at the appropriate time it's discharged onto a  
7 conveyor and bailed. And the processor may keep that bail  
8 around for a week or two weeks, depending what the markets  
9 are, and that contaminant, that bacteria, just permeates  
10 itself in that bail. And by the time it gets shipped, it  
11 gets worse.

12           So we've really come a long way with the  
13 technology. And the technology now agitates the material  
14 to the point where a lot of those glass shards are removed  
15 through the agitation process. But we still have to have  
16 enough labor dollars associated with the processing,  
17 especially in the post-sort area, to be able to remove  
18 those contaminants. Because, again, we're trying to move  
19 massive volumes of material at the rate of 25 to 50 tons  
20 and hour through one of these facilities, and there are  
21 going to be cans and bottles that are going to make it  
22 over the top of the screen. So what happens a lot of  
23 times to these processors is they're squeezed so tightly  
24 by all the economic constraints, they can't put enough  
25 post-sort people on there to pull off that material.

1           So I think that one of the other things you have  
2 to do from a planning perspective is you have to be  
3 realistic about what the cost of sorting it is, not only  
4 from a capital equipment standpoint, but from a labor  
5 standpoint on these people and work with the mills and the  
6 paper brokers so that you can say, "Look, what are your  
7 restraints? What are the things you can accept and what  
8 can't you accept? What's a bad item to have in here?"  
9 Make sure that you, A, don't include that in your  
10 recycling list, and, B, that you allocate enough labor if  
11 that does find its way into the waste stream that you have  
12 this economic feasibility of pulling that out without  
13 having to say, "Gosh, we can't throw the labor at it to  
14 satisfy the mills."

15           You have to be to able to look at it from a  
16 realistic standpoint and make sure you build that into the  
17 program from the beginning.

18           DEPUTY DIRECTOR SCHIAVO: What have you seen  
19 regarding the residuals? And what are the residuals  
20 comprised of as far as percentages and newer technologies?

21           MR. GITSCHEL: Well, you know, it varies on  
22 program to program. It can be as high as 35 to 40 percent  
23 in some instances. And they include the list of what Joe  
24 said.

25           And just to give you an example of problem things

1 like sheet film. We were talking earlier -- Steve was  
2 saying that the efficiency with this new technology is  
3 that we've gone from, say, 500 pounds per employee per  
4 hour as far as picking efficiency is concerned up to as  
5 much as a ton and a half.

6 Well, if you look at trying to pick out sheet  
7 film plastic, you know, each one of those things weighs a  
8 fraction of an ounce. And one picker is going to pick one  
9 of those at a time as it's coming down the belt. So their  
10 efficiency of picking goes down to somewhere in the  
11 neighborhood of 20 pounds an hour if they're just focused  
12 on sheet film.

13 Not the mention the fact that if you have to  
14 store all these different commodities -- if you have a  
15 40-foot long bunker that's, say, 40 cubic yards in  
16 capacity, it takes two of those bunkers completely filled  
17 to the top to make one sheet film plastic bail. So just  
18 to move that -- A, to get it off the belt in first place  
19 costs you a fortune. And then it gets discharged onto a  
20 conveyor. And then you tie up all this bailing time for a  
21 commodity that's worth nothing, versus being able to  
22 process all the materials that have a greater bulk density  
23 that make you money. That's an important thing.

24 DEPUTY DIRECTOR SCHIAVO: What I'd like to do  
25 right now -- it's about 12:15. Maybe we'll take a break

1 for an hour, come back at 1:15. And what we'd like to do  
2 is have interactive dialogue between you and members of  
3 the panel as far as some of your experiences, further  
4 questions regarding what you've heard up here, and we'll  
5 see where it goes. So 1:15 we'll be back. Thank you.

6 (Thereupon a lunch recess was taken.)

7 DEPUTY DIRECTOR SCHIAVO: We're going to go ahead  
8 and start on our final part of the session after everybody  
9 grabs their chocolate and other things. We appreciate you  
10 coming back for additional questions.

11 One of the things we're talking about is -- this  
12 goes for people listening on the web as well -- is this  
13 could lead to additional workshops or other things taking  
14 place depending on your interest level. There's just so  
15 much, and we're only able to cover a general amount today.  
16 So if you have any particular interest areas -- and we'll  
17 get a web address for you or you can go ahead and come up  
18 and tell us after we're done today what you'd like to hear  
19 in the future, and we'll see what we can do for putting  
20 together some other forum as well.

21 So this afternoon session is addressed to be more  
22 interactive in nature. So this is your opportunity to ask  
23 specific questions -- yes, sir.

24 MR. BLOOM: Steve Bloom, City of Oakland. The  
25 benefits of single stream --

1           DEPUTY DIRECTOR SCHIAVO: Hang on for a second  
2 because we're --

3           MS. MORGAN: Live.

4           DEPUTY DIRECTOR SCHIAVO: Want to get this all  
5 recorded. Okay.

6           MR. BLOOM: You didn't tell me that before.  
7 Steve Bloom, City of Oakland.

8           The benefits of single stream, we've been talking  
9 about them. And clearly they're very desirable at the  
10 curb, at City Hall, and the residences, for the haulers.  
11 But there's something that -- there's something else in  
12 the room I don't know if we can answer today, but I'd like  
13 to speak to it.

14           It sounds to me like we've talked about shifting  
15 some of the sorting away from the curb and into  
16 processors. But we're also talking about shifting some of  
17 the sorting into the mills or the yards of the mills,  
18 deferring that sorting from a Number 7 that was consumed  
19 to a Number 7 that's now sorted by low cost labor, for  
20 example, in China. That's the market we live in today.

21           I think we're also talking about deferring some  
22 of the disposal. We've heard it said there's this  
23 disposal, we're getting a good amount of diversion. But  
24 there's also disposal that's deferred and it comes out  
25 where? At the mills. And probably the cost per ton is

1 quite high when you talk about taking waste through a  
2 recycling system all the way to the mill and it comes out  
3 at the screen at the mill.

4 My question is this, is the market that we have  
5 today with maybe 10 percent of America going single  
6 stream. I don't know if anyone has any numbers on that.  
7 What does the market look like when 80 percent of the  
8 United States -- or the United States and Canada are  
9 single stream? And when do these costs of this deferred  
10 disposal and deferred sorting, when do they roll back on  
11 us municipalities? Thank you.

12 DEPUTY DIRECTOR SCHIAVO: Joe.

13 MR. SLOAN: I have no idea.

14 (Laughter)

15 MR. SLOAN: I wouldn't call it deferred disposal.  
16 Dave mentioned earlier some of the contamination issues.  
17 But when you talk about the standards that he mentioned  
18 that had to do with prohibitives and out throws -- out  
19 throws being like in fiber, for instance. Out throws  
20 being fiber materials that aren't appropriate for that  
21 grade and prohibitives being non-fiber.

22 We're not talking about an incredible amount. I  
23 mean, the PS standards will allow a quarter of 1 percent  
24 or a half of 1 percent of prohibitives. It depends on the  
25 grade. But we're not talking about extraordinarily big

1   tonnage.  We're not talking about big tonnage.

2               The second thing is the labor portion of it.

3   That's already come back to the cities or to the haulers  
4   to the producer because that's accounted for in the price  
5   that's paid for the paper.  That's not a cost that will be  
6   coming back.

7               MR. BLOOM:  Right now it's not a cost that's  
8   coming back.

9               MR. SLOAN:  The people that paid for the -- that  
10  buy the paper -- the mill that buys the paper already  
11  knows what they're buying.  It's not a surprise to them.  
12  They know what they're buying.  So when they pay the  
13  broker or whoever the person who's moving the paper is,  
14  the producer of the paper, that's accounted for in the  
15  price that's paid.

16              MR. SCHNITZIUS:  I can add to that as the hauler  
17  to the processor.  We work closely with the processor  
18  because we do pay for that tonnage.  When it comes  
19  through, if it's garbage, we're assessed a charge for  
20  that.  And it behooves us to keep our contamination rate  
21  at the lowest level to make sure that we get the optimum  
22  on that.  It's watched constantly.

23              MR. MEACHAM:  One of the things I wanted to point  
24  out for the cities that are in the crowd is that I am  
25  consistently shocked by how many jurisdictions do not

1 participate hands-on in allocation studies. And Steve  
2 probably wishes that I participated a lot less.

3           How many do we have? Like 12 a year, something  
4 like that. But because we have a multi-family program, a  
5 commercial program.

6           What I mean by allocation study is we put the  
7 materials on the ground. We watch the crews sort it out.  
8 We look at residual. We look at what's happening. We  
9 take pictures of it, and we incorporate that in our public  
10 education program. And cities have to take an active real  
11 in this because its directly -- that's what your public  
12 education program should be about. What's showing up in  
13 that pile that doesn't belong there.

14           MR. BLOOM: I appreciate those responses, but  
15 there's also another side of this which is you're selling  
16 into a market -- and we're increasingly selling into a  
17 market that represents just a portion that's single  
18 stream. What does that market look like, world global  
19 paper markets, when 80 percent of America is single stream  
20 or 80 percent of California because, you know, California  
21 holds up more of the Pacific Rim, you know, volumes around  
22 the world for wastepaper going to these other countries.

23           What does that market look like -- in other  
24 words, there's only so much chip board we can make out of  
25 this stuff. What does it look like selling into this

1 market when 80 percent of California communities are  
2 single stream? I know there's no answer to that, but it's  
3 a question I don't believe is addressed by saying good  
4 public education, clean it up at the tipping floor, which  
5 we should all do, absolutely. But what does it  
6 look like -- when we started curbside 15 years ago, 10  
7 years ago in various communities, we said, "We can always  
8 sell this paper. My hauler said we can sell it." What  
9 did we do? We all went to curbside. We learned about the  
10 inelasticity of the supply and what that did to the  
11 market.

12 I'm curious and I think it's a big question is,  
13 how does single stream impact the paper markets five  
14 years, ten years down the road when we're all single  
15 stream?

16 MR. MEACHAM: One of the things I think we have  
17 to keep in mind particularly as city people is -- it may  
18 be a cliché but I think there's a lot of wisdom in the  
19 cliché about thinking globally and acting locally. And we  
20 have made decisions to collect and process these  
21 materials. And the one thing I'm a little bit concerned  
22 about with single stream is stopping people from taking  
23 that consumer responsibility and participating. But we've  
24 backed that up with the pay-as-you-throw volume-based  
25 system that Steve talked about.

1           But getting to your point I think I would be  
2 concerned -- just as Hawkins talked about ecology  
3 commerce, I would be concerned if these gentlemen were  
4 talking about efficiency and not mentioning the additional  
5 sorters, the additional trucks, the additional drivers,  
6 the benefits and safety of those jobs and drivers and the  
7 ability of different people to be able to take on those  
8 jobs, women and people that are going to have different  
9 task skills that are quality task skills, not just  
10 strength alone. If they weren't saying those things also,  
11 I'd be very worried. But I don't think we have people up  
12 here talking about efficiency just in job elimination. I  
13 think we are talking about quality of job, safety of jobs.  
14 And almost everybody I heard up here in these programs is  
15 talking about expansion.

16           MR. KODIS: Sorry I didn't answer you quicker.  
17 I'm still trying to figure out what the wastepaper  
18 market's going to do for the next month. I can't help you  
19 with what's going to happen in five, ten years.

20           Only thing that -- it's a commodity. It's no  
21 different than orange juice or pork bellies. So it goes  
22 up and down with supply and demand. Five years, if we're  
23 looking at China westernizing even more and more material  
24 coming in and out of there -- because you have to take a  
25 look. Everything that comes out of China comes out of a

1 box. How many people are going to be reading papers in  
2 China? That's another big thing.

3 It all depends on what that marketplace is going  
4 to do. China's going to be the spot probably the next  
5 ten years. After ten years, you never know. Everything  
6 is evolving in the waste business. The export -- majority  
7 of stuff started going export probably in the 80s when we  
8 started getting containerized shipments. It's changing  
9 all the time. I wish I could give an answer to that, but  
10 it just changes so much.

11 MR. SCHNITZIUS: I know one thing. 20 years ago  
12 when we talked about recycling, it was just a joke. I  
13 mean, it won't be done, can't be done. There's no money.  
14 It'll never work, and people just didn't want to talk  
15 about it. And when government got involved and said it  
16 will happen, technology changed. As Joel mentioned, we  
17 went from carrying one to two tons a load up to seven,  
18 eight tons a load. Technology evolved. The markets  
19 evolved.

20 And I feel very safe in saying that I believe  
21 that in 10 or 15 years things will evolve, and the markets  
22 will be there just because there's a need for it. But one  
23 thing's for sure, if we don't do it, we'll never know.

24 MR. RYNEIC: Let me take one poke at that. I  
25 think to clarify your question a little bit or concern is

1 a lot of the discussion here that's going on is  
2 residential curbside, and that furnishes news and OCC.  
3 But the heart of the recycling industry and the quality of  
4 recycling industry comes in the white paper area. And  
5 there's been lot of talk about going single stream and  
6 commercial. When you go single stream commercial, then  
7 you have wiped out the quality of recyclable materials.  
8 So we're not talking about that here. I think we're  
9 talking about residential. But if we ever go to  
10 commercial and have a panel, I want to be sitting here.

11 MR. SLOAN: That's also an interesting  
12 development. However, dealing specifically with the  
13 notion of going single stream on commercial -- at least if  
14 you're going to go single stream fiber, there are people  
15 that developed ocular scanners for glass and plastics  
16 have also been making pretty significant advances on  
17 developing scanning techniques to develop -- I mean, to  
18 identify fiber types. And they're having some great  
19 success with that out of the commercial waste stream to be  
20 able to high-grade fiber at a low labor cost with  
21 scanners. So that stuff's developing as well.

22 MR. GITSCHEL: The other bottom line with this  
23 is, this is simply simple supply demand economics. Who  
24 knows what's going to happen in ten years with anything.  
25 But if there's a demand for the product, there will be a

1 certain price paid. And if that price paid justifies  
2 having these facilities and collecting the material, then  
3 it will happen. And if it doesn't, the price will either  
4 go down or the facilities will close. It that's simple.

5 MR. SOUTH: If I can add something just to round  
6 out the entire panel response so we can all say something  
7 before Board Member Jones does. I can tell that you in  
8 1989 we built one of our first plants. We couldn't get  
9 financing for it. As a family-owned company we had to put  
10 our properties on the line. Our homes were on the line to  
11 finance that plant because we couldn't get it.

12 One of the things that came up in discussion that  
13 the bank said there would be a degradation of material  
14 value. Their analyst said there would be a degradation of  
15 material value because at the time we had people bringing  
16 in clean newspapers. They were bringing them in through  
17 the Boy Scouts program and various charitable programs.  
18 They were brought in to drop-off centers. And there would  
19 be a material value degradation through the collection  
20 process and the subsequent processing itself. And while  
21 certainly to some extent that did occur, from a historical  
22 perspective that's now viewed as what we call clean  
23 material today.

24 So I think that what George is indicating is  
25 coming back to supply and demand today, where we have

1 people tripping over themselves to give us financing for  
2 plants as opposed to that time.

3 I think the market did respond and will continue  
4 to respond. I know that certainly the manufacturers and  
5 warehouses and excellent purchasers want the highest  
6 quality of material possible. But I think that if you  
7 look at the reference to the 1200 pounds of glass 30 years  
8 ago rather than just 15 years ago, it'd be even less. It  
9 would be microscopic in terms of what's happened in the  
10 influx and how the mills, in turn, have responded. So it  
11 very much is a supply and demand, as is our entire  
12 economy.

13 BOARD MEMBER JONES: I think one thing, too, that  
14 everybody needs to consider in this -- and I think to go  
15 to part of your question is like -- I don't know if part  
16 of the question was is the material downgraded a little  
17 bit now, and is that going to have an impact on the entire  
18 pricing structure?

19 But we've got a system today where cities and  
20 counties are adding single stream, utilizing processing  
21 facilities that were set up for source separate. They're  
22 not set up with disc screens. They're not set up with the  
23 type of machinery that's required to end up getting that  
24 process quicker, to get it cleaner, to put it in a  
25 condition that it's marketable. This isn't the day for

1 this discussion, but it is part of what the Board is  
2 looking at in its Strategic Plan. We're looking at the  
3 idea of conversion technology, the same kind of technology  
4 that gets biofuel, that gets electricity.

5           What it also does right now -- everybody here  
6 that recycles paper is chasing the same dollar. You don't  
7 have any options. You got paper mills, and that's the  
8 dollar everybody's chasing. So as more people recycle, as  
9 there is more material out there, if there's not the  
10 demand or if this global economy starts taking containers  
11 from the West Coast and sending them to Hungry instead of  
12 China or Korea, we've got a real problem.

13           So we need to be looking at how do we expand that  
14 in non-mass-burn-type things. Today's not the day. But  
15 what that is going to do is it's going to start opening up  
16 competition for a product, and especially the product on  
17 the lower end that can provide the feed stock to come up  
18 with that. That's a discussion for another day.

19           But it's important when you really stop to think  
20 about what dollar you're chasing, you're only chasing one  
21 dollar. And right now it's those guys, and it's driven by  
22 what we buy and how the economy is. So I think you've  
23 always got to keep that in mind. It's not just about the  
24 collection or the efficiencies of collection. It's what  
25 dollars are we chasing. So I would hope that that would

1 always be part of it.

2 DEPUTY DIRECTOR SCHIAVO: Okay. Jim.

3 MR. GRECO: Does anyone on the panel --

4 DEPUTY DIRECTOR SCHIAVO: Could you go ahead and  
5 state your name for the record.

6 MR. GRECO: Jim Greco.

7 Does anyone on the panel consider residential  
8 curbside commingled recyclables collected in a bag single  
9 stream recycling? Blue bag, yellow bag collection  
10 systems.

11 MR. SOUTH: From a processing standpoint if it's  
12 commingled, it's single stream. That's my processing  
13 side.

14 From the collection side it's a nightmare. From  
15 the collection and processor side --

16 MR. GRECO: The reason why I bring it up is the  
17 KISS philosophy. As we're communicating amongst  
18 ourselves -- you know, maybe someone not as familiar as  
19 ourselves might be thinking single stream or they also  
20 talking about the bag systems, the commingled blue bags  
21 with garbage in the same truck or maybe without.

22 MR. SOUTH: I think that the best example of the  
23 blue bag system and some of the challenges that exist are  
24 certainly in Chicago. The city of Chicago is on a blue  
25 bag system. There's four separate plants that process

1 that material, and it's extraordinarily challenging.

2 I guess from our perspective we're clearly  
3 talking about source-separated automated carts or  
4 manually -- I shouldn't say automated. But just  
5 source-separated single stream inbound material.

6 Joel.

7 MR. CORONA: Go ahead.

8 MR. ADAMS: Before we leave, may I make a  
9 comment, please.

10 DEPUTY DIRECTOR SCHIAVO: Mike. Use the mic,  
11 Mike.

12 MR. ADAMS: Mike Adams, Waste and Recycling  
13 Authority, Hanford.

14 There's an area in the greater United States a  
15 little closer than Chicago that can talk about the yellow  
16 bag program, that's strikes Kings County. First of all,  
17 when you implement a recycling program and have absolutely  
18 zero support from elected officials both at the county and  
19 the city level, you're bound for failure. And that's what  
20 happened to us down there.

21 My budget for yellow bags was \$500,000 the first  
22 year. What we got back in commingled recyclables was a  
23 grand total of \$46,000. How many people in the business  
24 world will continue putting up 500,000 for 46? We're not  
25 very smart down in Kings County. We did that three years

1 in a row.

2 Our facility was built to handle yellow bags  
3 only. My problem is -- and I will never agree with the  
4 state formula because socioeconomic factors play a big  
5 difference in your recycling numbers. We are big in  
6 agricultural down there, and my waste stream is mixed with  
7 both commercial, residential, and dairies. Right now I'm  
8 trying to get our officials to go to a third can for  
9 commingled recyclables because that's basically what it  
10 was built for, only it was the yellow bag.

11 My main sort line is no longer than this table  
12 right here. And if you go into facilities that were built  
13 for single stream, you know what I'm talking about as far  
14 as the difference. The yellow bag, it can work. We built  
15 a \$12 million facility because of it. But if you get no  
16 support and no enforcement, you're doomed for failure  
17 right from the get-go.

18 And don't anybody call the Board of Supervisors  
19 and tell them what I said down there, please. I like my  
20 job.

21 (Laughter)

22 MR. SOUTH: I think they're listening.

23 MR. ADAMS: Oh, well, no problem because nobody  
24 listens to that anyway. Thank you very much.

25 DEPUTY DIRECTOR SCHIAVO: Michelle, in the white.

1 MR. MILLER: Kevin Miller, City of Napa.

2 One thing I was wondering about because we are  
3 one of the jurisdictions that has automated yard waste,  
4 has automated trash, and has basically a fiber container  
5 separation in terms of commercial and residential is let's  
6 talk about the high end again, the source separated office  
7 paper programs that we have intact from a commercial  
8 generator. Is there enough market difference to sell  
9 those materials as an office pack or as a white ledger to  
10 justify retaining those source-separated office paper  
11 loads, even if you went single stream for the rest of your  
12 waste stream? I guess I'm asking the haulers and the  
13 paper buyers as much as anybody.

14 MR. KODIS: Well, actually it's going to depend  
15 on what the difference of the pricing is going to be. If  
16 you want to talk about office pack compared to white  
17 ledger, probably today would be not a bad day to sort it  
18 since there's a big difference, probably \$100 a ton  
19 difference, but sometimes it's not like that. The markets  
20 run different. So if the demand for white ledger and  
21 office pack is only a \$30 difference, then you've got to  
22 ask the processors does it make sense to pull white ledger  
23 out of office pack for \$30 a ton difference. A lot of  
24 them will say no.

25 Even going back to when I think Joe was talking

1 about the difference in pricing for 7-8 news compared to a  
2 clean Number 8 news. What's the difference in the  
3 pricing? Is it \$15 a ton difference. Well, maybe it is  
4 \$15 a ton difference, but maybe it's going cost you \$20 a  
5 ton to sort it that way. So everybody's like move it and  
6 blow it out. That's quicker.

7           One of the things we ought to look at too is  
8 there's such an increasing cost of labor especially in  
9 this state. You've got workman's comp going up. You've  
10 got insurance rates that are going up. Ask basically any  
11 of the processors. They'll say, "Listen, I want to get  
12 rid of that. I want as little labor in it as possible."

13           So that's kind of a two-part question. Just  
14 depends what the market is. Some places are set up they  
15 can automatically within a day say pull the white ledger  
16 off, there's a big enough difference. But that really  
17 depends. You have to be able to do that on the fly if you  
18 want. But processor can probably answer that.

19           MR. SCHNITZIUS: One thing from a hauling  
20 standpoint -- I'm relatively new to this. I've only been  
21 in 30 years. I've never been able to figure out how a  
22 paper route pays for itself. I mean, no matter what you  
23 pick up, by the time you take it to the processor and he  
24 sorts it and you pay the processing fees and you net out  
25 \$30 a ton and you haul a whopping seven tons down there

1 and you look at the end of the day, you're going to have  
2 to sell more watermelons. Recycling does not pay for  
3 itself. There has to be a charge. So what's your charge  
4 going to be? It depends how much your revenue is on the  
5 back side. You be the judge.

6 MR. CORONA: For the commercial processing, I  
7 believe we'll keep a lot of source-separated fiber  
8 programs for the commercial and industrial customers.

9 The newest MRFs we're building have independent  
10 commercial as well as residential lines knowing that the  
11 feed stocks are going to be fundamentally different. For  
12 those customers that generate high quantity and high  
13 quality material, it's our preference to preserve that,  
14 providing that the economics work out.

15 MR. FRIERSON: Barbara Frierson, City of Fremont.

16 I'm wondering whether any of the panelists are  
17 aware of any residential programs, single stream, that are  
18 trying to separate out glass rather than mixing it in with  
19 all the other materials. I had heard recently that the  
20 city of Portland was collecting glass a little bit  
21 separately. I'm just wondering if anyone knows of any  
22 other models because we would be interested in that.

23 MR. KODIS: I think Las Vegas still does. I  
24 believe -- is that right?

25 MR. RYNEIC: Yeah. Most of Oregon -- I should

1 say almost all of Oregon does not allow glass into the  
2 commingled streams. That's part of the EQ regulations up  
3 there. They do keep it out, just as glass though, not as  
4 containers.

5 MS. FRIERSON: And how do they separate it? Do  
6 they have separate collection containers, or do they bag  
7 it within the commingled stream?

8 MR. RYNEIC: It's a separate run, separate time,  
9 maybe once a month. But it is kept totally separate.

10 MS. FRIERSON: And how about Las Vegas? Do you  
11 know how they separate?

12 MR. KODIS: They have separate trucks.

13 MS. FRIERSON: So they have separate trucks just  
14 for the glass?

15 MR. KODIS: Actually separate trucks for the  
16 recycling, but they have different bins for it.

17 MR. CORONA: In the Northwest the price of  
18 recycling glass and recovering it is tremendously  
19 different than in Northern California. Much of the  
20 Northwest glass that's mixed glass would end up coming  
21 down to a facility like ours at CRA or strategic facility.  
22 And it's as much cost prohibitive as any other reason.

23 We're not seeing glass problems in the fiber that  
24 we produce from our single stream plants. And in talking  
25 and presenting and sharing ideas with people from the

1 Northwest, their biggest issue is the cost of getting  
2 glass to market for the small paltry return that they get  
3 for it, considering their reimbursement structure is  
4 totally different than what we have in California. It's  
5 just cost prohibitive to railroad or truck glass from  
6 Portland or Seaside or someplace, to Vernon or Union City  
7 to process.

8 DEPUTY DIRECTOR SCHIAVO: It's coming.

9 MR. FORAN: Brian Foran with the Waste Management  
10 Board.

11 It seems with all the benefits for commingled  
12 collection, seems that the real issue here is higher  
13 levels of contamination. And with the program in Chula  
14 Vista with your low contamination rate, it seems that, you  
15 know, obviously you have a good education program, and  
16 certainly that's -- the low contamination rate is largely  
17 due to that, or at least partially due to that. That  
18 other factor, though, that I'm seeing is the visibility of  
19 the container when it's being collected by the trucks.

20 So my question for Jerry and perhaps any of the  
21 other panelists is, do you see that as perhaps a trend in  
22 commingled collection? And how much do you think it's  
23 going to help to keep the contamination down for the  
24 drivers to actually see the recyclables going into the  
25 intermedia bin and when they see contamination to -- you

1 know, marking the can and getting it back to the people?

2 MR. SCHNITZIUS: That's a big selling point for  
3 us. Certainly when Michael and I were negotiating, I  
4 brought the Curatto system to him that -- the city was a  
5 little nervous about the litter problem with actually  
6 dumping the container into the truck after you dump it  
7 here. It's a two-stage process. And we worked through  
8 that by putting special trapping systems on the top of the  
9 truck to have less litter and everything. But I think  
10 truly it's one of the selling points and one of the key  
11 points of keeping your contamination down. I know  
12 programs I've had in the past -- companies in other  
13 states, we had a much higher contamination rate because on  
14 a regular automated truck the driver could not see what  
15 was going in the truck. And this way we do have a strong  
16 control over it. I think it's lent to the success of the  
17 program, and it's cheaper. Remember that. Because you  
18 can use the same truck that you using on your commercial  
19 routes.

20 MR. GITSCHEL: Just to follow-up on that real  
21 quick. I think that's an excellent point. I just want  
22 everybody here to know the technology for the equipment  
23 has evolved to the point where if we get clean material  
24 into a facility, we're going to produce a clean material,  
25 as an outflow. Even from the prospective of glass and the

1 fiber, the new screening technology is such that it  
2 agitates the material enough so there's very little, if  
3 any, glass in the fiber that's the result of a properly  
4 set up current recycling plant.

5           A lot of the problems that people like  
6 Weyerhaeuser are experiencing is that some of the plants  
7 that are processing this material, as Steve Jones  
8 mentioned earlier, are older technology that don't give  
9 that kind of agitation to the fiber to release the glass  
10 shards. And, therefore, that ends up in bail form and  
11 ends up in the mill. But we're there from a technological  
12 standpoint right now.

13           MR. SOUTH: I want to follow up something real  
14 quick That Jerry identified. I think Jerry can speak to  
15 this. I'm not sure if everybody's in agreement. Single  
16 stream does cost more. And there's various times where we  
17 talked about elements costing less. And I want to make  
18 sure that we're not misleading you in any way. There is  
19 an increased investment that's typically reflected or  
20 recovered in some type of rate recovery or alternative  
21 recovery in revenues or whatnot. But there is an  
22 increased cost to single stream overall from a net  
23 standpoint.

24           So there's a variety of factors that are  
25 benefits, but I want to make sure that we haven't mislead

1 you in terms of that, over traditional tub recycling.

2 MR. SLOAN: Let me just tag on to that, Steve.

3 The incremental cost, the gross cost of the  
4 overall solid waste system is more expensive. It goes up  
5 when you implement a single stream program. But the per  
6 ton cost of recovery is lower. You are increasing the  
7 amount of material that you recover. We used the figure  
8 earlier of 100 percent over the old-style recycling  
9 programs. So while there is an additional cost to it, on  
10 a per-ton basis it's less expensive.

11 MR. VALLE: Richard Valle.

12 I'm glad you brought up that question or that  
13 issue because there's a lot of cities sitting here,  
14 including ours, that have looked at single stream simply  
15 because it was going to reduce the cost to the homeowner.  
16 And that was an incentive, as well as increasing the  
17 tonnage.

18 Now, I see Jerry shaking his head no. That's  
19 important to know.

20 So here's a couple of questions that may help to  
21 get to the point. On the trucks that you have the front  
22 loaders, how many average set-outs per day compared to the  
23 previous fleets that you had? That's one question.

24 Were the rates reduced compared to what they used  
25 to be?

1           And did you reduce the number of vehicles in your  
2 fleet from what it used to be?

3           And what is the average workday?

4           MR. SCHNITZIUS: Yes. No. Yes. No.

5           (LAUGHTER)

6           MR. SCHNITZIUS: I can tell you that the average  
7 set-out on the home now, we set them out -- right now  
8 we're running right at 1,000. We know we can take that up  
9 to a higher rate. That's 1,000 homes collected per day.

10          MR. VALLE: Per vehicle?

11          MR. SCHNITZIUS: Per vehicle. That's trash and  
12 recycling. We have -- the recycling can go a little  
13 deeper, but we're running seven recycling routes and eight  
14 trash routes. That's how it kind of balances out.

15          There is a cost, and certainly I'm glad Steve  
16 mentioned it. And I was remiss in not covering that.  
17 There was an additional cost when we put out 90,000  
18 containers and you buy the Curatto cans at \$30,000 a piece  
19 and you have to have two extras just to make sure  
20 mechanically you can keep everything going. And that's  
21 where the city of Chula Vista and ourselves sat down and  
22 we said, "We have this cost. How do we recognize this  
23 cost?"

24          The city looked at it and said, "The home owners  
25 are paying the brunt of this program already. The home

1 owners are the ones recycling now. We're getting -- the  
2 volume is coming out of the home owners. We're not going  
3 to saddle the home owners with the cost. We're looking at  
4 a commercial side that's not doing its part to recycle.  
5 So we're going lay the cost of the recycling difference on  
6 the commercial rates in a "per cubic yard increase" as to  
7 the commercial side. The way they could reduce their  
8 rates was then to look at commercial recycling to lower  
9 their rates.

10 I think it was a very wise move on the city.  
11 Certainly, it spurred the commercial side to take up more  
12 of an interest in recycling. As a home owner in Chula  
13 Vista, they didn't see a rate increase, but there was a  
14 cost increase.

15 And your last question, the average time for  
16 workday. Averaging right now we're running about nine to  
17 ten hours a day.

18 MR. MEACHAM: To add to what Jerry said, I want  
19 to point out a couple things. One of them is a portion of  
20 that cost was passed through as a recycling incentive fee.  
21 We give a small portion to roll-off boxes as a part of our  
22 previously voluntary and now somewhat more mandatory  
23 construction demolition program.

24 And a part of it also went to the large  
25 commercial generators. 50 percent of the commercial

1 generators in Chula Vista are already in either a  
2 three-yard bin once a week or smaller, a two-yard bin once  
3 a week. Only the generators that are in a bin four yards  
4 or multiple collections per week got that because they're  
5 the people we want to provide an incentive to get down to  
6 smaller containers. So, again, everything in our program  
7 is about incentives.

8           Probably the key to all of this was it was  
9 explained in excruciating detail to the Council over a  
10 number of workshops and to the public. We had, you know,  
11 meetings with the Chamber of Commerce and other people to  
12 let them know what direction we were going and what was  
13 going to happen.

14           Lastly, I wanted to say that in those rates we  
15 also considered other things like savings from efficiency  
16 and avoiding disposal. So a part of the way we got there  
17 was the company stepping up and doing their share also.

18           MR. BROWN: Rebecca Brown with the Office of  
19 Local Assistance.

20           I have two questions. One is, has the increase  
21 in plastic containers and the decrease in glass containers  
22 had a significant effect? Did you see that increasing?

23           And then, two, has anybody seen in action the  
24 effects of dual stream collection or any opportunities  
25 along those lines?

1           MR. MEACHAM: To answer the question about the  
2 changes in the material -- that also goes back to the  
3 earlier question about number of set-outs.

4           I've never been a real big proponent about  
5 set-outs. What I like to measure and I like to see is  
6 tons per household. I think that's a much better number  
7 to jump on.

8           I would also caution you in looking at that  
9 spreadsheet I provided about how much change we've had.  
10 Although I hate to say this in front of Steve because I  
11 think the aluminum cans have gone way, way up. But, no,  
12 actually, it's really too early in our program to judge  
13 those materials. We've only been in place one year. And  
14 as Steve pointed out appropriately earlier, these are very  
15 volatile numbers based on season, based on economy, and  
16 all kinds of things. It's going to take more than the 14,  
17 15 months we've been in place to get the numbers.

18          But we have absolutely seen some changes. You  
19 can see them in the spreadsheet. But I don't count on the  
20 numbers yet. What I will look at eventually is the pounds  
21 per household and the pounds per commodity per household  
22 over time and see how that levels off and whether that's  
23 consistent or not.

24          MS. BROWN: I'm sorry. Maybe I didn't make the  
25 first question very clear.

1           There's been an increase in using plastic  
2 containers for products as opposed to glass. And I know  
3 contamination of paper or fibers by glass has been a big  
4 issue. I wonder if with the increased use of plastic as a  
5 product versus glass that's had an impact and what that  
6 impact has been.

7           MR. GITSCHEL: The technology has improved to a  
8 point where we don't really have a problem with getting  
9 glass in the fiber stream anymore. So if there's a  
10 relative change in the percentage of glass versus plastic  
11 containers in the single stream stream, it hasn't really  
12 effected us from a quality standpoint.

13          MR. RYNEIC: The only data we have on that, we're  
14 seeing an increase in the amount of glass showing up at  
15 the mills. But relative to the use of plastic, I don't  
16 think we can make any kind of determination.

17          DEPUTY DIRECTOR SCHIAVO: Following up on the  
18 glass issue. You know, as a result of the additional  
19 processing of the glass and the more advanced technology  
20 you probably end up with more glass shards as a residual,  
21 I would imagine. And so what's your plans for dealing  
22 with that residual?

23          MR. GITSCHEL: Here's the issue. The issue is  
24 that when you set your glass containers out into a single  
25 stream container at the curbside and that can is dumped

1 into a compactor truck that has sometimes upwards of  
2 400,000 pounds of force that's compressing everything to a  
3 6-, 7-, 8-ton load in the back of a truck and it's driving  
4 around the city for four to six hours before it gets to a  
5 recycling facility, when it gets to the recycling  
6 facility, they dump this container which at a minimum is  
7 four feet above the grade, at a maximum is 12 feet above  
8 onto a concrete tip floor. It's then pushed by a 50- to  
9 60,000-pound loader onto a belt that has either steel  
10 cleats or metal belt surface. And then it might hit four  
11 or five transitions before it hits the screen that's  
12 traveling at 1750 RPMs and has steel shaft. How much  
13 glass do you think is going to make it through that  
14 system? Not very much.

15           So what the systems do now is they separate by  
16 particle size. And in most new single stream systems  
17 they'll separate by various particles down to, say, a  
18 2 1/2 inch minus size. And out of that 2 1/2 inch minus  
19 that comes out of a single stream material flow, about  
20 90 percent of that by weight is glass. The other is small  
21 shards of paper that might be the result of somebody  
22 shredding documents in their house and putting this out in  
23 the recycling stream, doll heads, plastic pieces of toys,  
24 shotgun shells. I mean, it could be anything.

25           And so now what we're doing to try to address

1 that issue is to use different type of emerging  
2 technologies, either magnets or air or crushing techniques  
3 to separate that glass from all the other residual.  
4 That's how we're trying to recover it. That's a whole  
5 other workshop that needs to be discussed because it is an  
6 issue.

7 MR. SLOAN: Yeah. By the way, I've wanted to say  
8 this since this morning. But if you look statewide at  
9 single stream recycling programs, San Diego County is by  
10 far the leader of the pack in terms of low residual.  
11 They've done a great job down there. I know Edco has and  
12 BFI and the city have done a great job, I think, of  
13 educating people. And also I think the enforcement part  
14 of it down here has been key to keeping the residual low.

15 But I've seen those numbers down there, and  
16 they're single stream numbers that are consistently coming  
17 in under 10 percent residual. And I would say in most --  
18 most programs the real number's 15 to 20 percent residual  
19 from single streams programs and some are higher.

20 But a big portion of that -- a big portion of  
21 that high residual is in that material that George just  
22 described. It's the under-two-inch material. It might be  
23 the glass that's the size of the bottom of a coke bottle  
24 or wine bottle or something like that and smaller. If you  
25 see this material -- almost all single stream processing

1 facilities have it. It looks like a pile of dirt. It's  
2 got a lot of grit and sand, maybe even small particles of  
3 food waste, chicken bones, pens and pencils, corks,  
4 shotgun shells, those types of things. But the  
5 preponderance of it, the weight it is 60 to 80 percent  
6 glass. That's a problem material, and there are a lot of  
7 ways we're working with right now to try to clean up that  
8 fraction which will make a pretty significant reduction in  
9 the amount of residual from these plants.

10 MR. SCHNITZIUS: I have a question for Gary  
11 McGrath in the audience. Gary is with the Allen Company,  
12 and the Allen Company is the processor for the city of  
13 San Diego in San Diego County.

14 And Gary, the city of San Diego has a different  
15 system. They're certainly single system. I know. I live  
16 in San Diego. They're picked up with a side loader truck  
17 versus ours. And I was just going to ask Gary, what do  
18 you see in residual in the city of San Diego?

19 MR. McGRATH: We're fortunate as well. Our  
20 residual has been running about 7 percent a month.

21 MR. SOUTH: And I actually -- I appreciate your  
22 comments, Joe. And I would also like to commend and note  
23 that Allen Company does a fine job as well as another  
24 company in that region, IMS, because it is a challenging  
25 stream. San Diego County, little bit different than most

1 of the counties in the state, implemented mandatory  
2 recycling many years ago. It's now in it's tenth year.  
3 So there's been a lot of cohesive education, cohesive  
4 enforcements, and several quality companies in the  
5 processing arena, including the Allen.

6 MR. CORONA: One thing I want to mention about  
7 single stream processing and residue -- and we compared  
8 notes and ideas and shared numbers along the table here  
9 and also with the audience. If a facility's exceeding  
10 10 percent in residue, it either doesn't -- in my opinion,  
11 it either doesn't have modern equipment, there's a  
12 collection problem, or there's an operating problem. It  
13 shouldn't exceed 10 percent. It can't by permit and still  
14 stay only a MRF.

15 But when we talk about, when we hear 20, 30, 40  
16 percent residue, there's something fundamentally wrong.  
17 This is not what a single stream MRF and single stream  
18 system operates. There's a disconnect either between --  
19 like Board Member Jones had mentioned, where you've got  
20 single stream collection, but you don't have single stream  
21 processing, or you've got tremendously contaminated  
22 material coming into the facility. And when we've looked  
23 at -- we do our own characterizations. When we see high  
24 contamination rates, it's usually because there's high  
25 contamination rates of material coming in.

1           And through the integration of a company like  
2   ours, we do primarily inter-company processing, but we do  
3   a lot of merchant processing too. We tie problems back to  
4   their origin. And that's a function of working closely  
5   with the collection company and the local governments,  
6   whoever's doing the public education. This ties back to  
7   what Steve South said about the import of public  
8   education. Often -- often and not just as a promotional  
9   piece, but as an ongoing advertising campaign.

10           But again, under 10 percent is where we need to  
11   be at single stream. 30, 40 percent isn't -- there's a  
12   problem, and it's not a single stream operation. It  
13   sounds like a trash operation.

14           MS. MORGAN: A question to the panel members  
15   following up on Joel's comment. How important of a role  
16   is local government? Obviously, a lot of communities are  
17   looking at switching over or have already switched over.  
18   And oftentimes we hear, "Well, the processor needs to take  
19   care of that" or "the hauler needs to take care of that."  
20   But what are local government's roles? And where do you  
21   see them as being a part of this? And maybe we should  
22   start with Michael.

23           MR. MEACHAM: Critical and unpaid. I think that,  
24   you know, as the conduit for the communication with the  
25   consumer, the city is critical. I think we -- one of the

1 things that we try to do in Chula Vista for the haulers  
2 not only to participate as a partner with them, but also  
3 to take responsibility for problems with the consumers  
4 when they occur. And by that I mean, not to leave them  
5 out there hanging when issues come up about someone not  
6 liking the system or whatever.

7           You know, we have made -- I'm very proud our  
8 Council. We've made some very difficult policy decisions  
9 in some very difficult economic times, and there are going  
10 to be public complaints. It tends to be an extremely  
11 small number of people, but it does happen. And you have  
12 to be there to back up your partner, and you also have to  
13 be willing to take the time to explain it to the public.  
14 And this's critical. It obviously isn't good enough to  
15 say "that's the ordinance" or "that's the law." It has to  
16 be explained to each individual, as time-consuming as that  
17 is.

18           And you have to realize people obviously have  
19 very busy lives and a lot more important thing to do than  
20 fluff and fold their trash, as important as I think that  
21 is. Now our explanation is that we've made that easier,  
22 but we still desperately need their participation to do  
23 it.

24           But I think that's one of the most critical roles  
25 is to act like a partner and be -- not so much as a

1 buffer, but be that support mechanism both for the  
2 consumer and the rate payer, as well as the company when  
3 these issues come up.

4 MR. SCHNITZIUS: From the hauling side, having  
5 operated in five different states and different programs  
6 across the country, I can tell you the most successful  
7 programs are the programs where the municipal governments  
8 and the haulers are working in conjunction. It can't be  
9 driven from one side or the other. It has to be a  
10 symbiotic relationship or it just doesn't work. It's just  
11 not going to work, period. And if you -- if you as a  
12 hauler have a municipality that's not interested, it truly  
13 is not worth your time. And vice versa, if you, the  
14 municipality, have haulers that don't want to comply,  
15 they're not worth your time. And call my number.

16 MR. CORONA: Our greatest successes are in  
17 communities which have strong and willful local  
18 governments and good administration. Janet Schneider is  
19 here from Contra Costa County. There's a very successful  
20 program. Other areas I've worked in and where we have  
21 programs, the best programs, the greatest diversion, the  
22 lowest residue rate, the greatest customer satisfaction is  
23 when you've got everybody working together and you've got  
24 an open-door policy both at the company and the city and  
25 everybody's working towards a common goal. And then real

1 magic happens. And it has to be that way.

2           DEPUTY DIRECTOR SCHIAVO: Just a curious question  
3 regarding the trucks and how you've made your selection of  
4 trucks. We've seen split trucks. We've seen the trucks  
5 you've shown up here, other variations. How did you  
6 determine what kind of truck to use and what's the pros  
7 and cons versus some of the others?

8           MR. SCHNITZIUS: Really a cost end point is one  
9 of the major factors. And we looked at a fleet of trucks  
10 that we had on hand which were front loaders and were  
11 servicing a lot of the residential areas already. Rather  
12 than throw the trucks out and start over again, how can we  
13 utilize the fleet? And that was the big consideration.  
14 The Curatto was a phase-in that we looked at. I had  
15 experience with it several years earlier. They had a lot  
16 of early maintenance problems, which since they've  
17 overcome.

18           We mentioned technology is changing every year.  
19 So it was an easy tuck-in for us. For the cost of buying  
20 12 additional new trucks, we took a lot of our existing  
21 fleet and used them all. So then we had 25 mechanized  
22 trucks, rather than buying 25 separate trucks. So it  
23 purely was a cost factor, but it's working out splendidly.

24           MR. SLOAN: Yeah. Split trucks -- you mentioned  
25 split trucks. And they're -- I think in theory and

1 possibly in practice they're a workable idea. But the  
2 problem that you have -- and it's something that Steve  
3 mentioned earlier -- and that is business of recycling is  
4 a very seasonal business. And it ebbs and flows. And you  
5 get big slugs of material during certain periods of year,  
6 and other times you don't.

7           The problem that you run into with the split-body  
8 truck is it's less efficient collection aspect of things  
9 because you end up with one side full and the other side  
10 maybe half full or two-thirds full and you've got to leave  
11 the route without a full load. So, thereby, your  
12 collection cost goes up.

13           The other things it does, it provides an  
14 opportunity or at least a temptation for a driver who's  
15 out on the route to cross-contaminate the material. In  
16 other words, if he fills up one side whether it's trash or  
17 whether it's recycling and the other side still has room,  
18 "Hey, I'm not going to go to the dump or the landfill or  
19 MRF and come back out here and pick up 100 containers."  
20 They just put them where they have the room. That doesn't  
21 always happen, but it's a possibility. And it has to be a  
22 consideration.

23           DEPUTY DIRECTOR SCHIAVO: Any questions? There  
24 in the back.

25           DEBRA KAUFMAN: This isn't a question. Debra

1 Kaufman, Alameda County Waste Management Authority.

2 This isn't a question on single stream, but on  
3 the trucks on the biofuel issue. Could you speak to how  
4 long you've used it, how well it's worked, whether the  
5 maintenance costs have gone up or down, and what you think  
6 about other local governments encouraging their haulers'  
7 fleet to go toward more biofuel, biodiesel.

8 MR. SCHNITZIUS: We actually experimented with  
9 different blends for about six months, and at the same  
10 time we were running what they call capacity checks. We  
11 were actually monitoring the pollutants coming out of the  
12 stacks.

13 When we went to the biofuel program, we actually  
14 converted four trucks for 30 days to 100 percent biofuel.  
15 We didn't run any diesel in four trucks because we wanted  
16 to see if there was going to be a negative effect. In our  
17 studies we could never find any reports of any really  
18 adverse effect using biofuel except in the colder climates  
19 and some of the areas back east it tends to freeze up. We  
20 don't have that problem in San Diego.

21 We ran -- like I say, our first capacity test we  
22 ran using the 20 percent blend. It's called AD20, or  
23 B20, biofuel 20 percent. I have to add there is an  
24 additive to this. So it's not just all biofuel. There's  
25 a small additive that's added to it to help the NOX on the

1 emissions.

2 But we've had virtually no problems at all.

3 We've seen zero cost increase. In fact, on the contrary,  
4 our drivers report that they feel like they're getting  
5 better power with the trucks, even though it's probably in  
6 their heads. What they don't see is smoke. It just  
7 virtually -- and we've had trucks in our fleet that were a  
8 little too old that put out quite a bit of smoke. And we  
9 started with the B20, and I mean, virtually overnight we  
10 practically eliminated it. And we're excited about it.  
11 To us it's worth the 12 cents per gallon. Even when fuel  
12 went through the roof, to have this -- and certainly it's  
13 a great selling point. We sell it at every meeting, i.e.,  
14 why I'm telling you about biofuel the same at a recycling  
15 meeting.

16 We love it and we'd encourage it to everybody. I  
17 can tell you we know Carb is looking in their testing for  
18 it to get the certification.

19 MR. MEACHAM: Jerry said this earlier, but a big  
20 part of why we were interested in the direction they took,  
21 we left this choice to them about alternative fuels. And  
22 we had expected them really to go with CNG or LNG. But as  
23 Jerry said before, he was able to convert not two or three  
24 trucks a year but an entire fleet of 40 trucks virtually  
25 overnight. So the benefits, you know, were considerably

1 greater by taking this approach than they would have been  
2 by doing it a little bit of a time, that that was a  
3 incredible positive thing. And I also wanted to mention  
4 that as wonderful as the weather is in San Diego, it's  
5 almost perfect in Chula Vista. So that's why you don't  
6 have that freeze up.

7 (Laughter)

8 MR. POULSON: Zane Poulson with the Office of  
9 Local Assistance.

10 Speaking about the fiber contamination. Do you  
11 take steps as far as your education to get people to rinse  
12 out bottles and cans and food waste trying to actually get  
13 them to rinse it or clean it out before they put it in  
14 there? And what steps do you take and how important do  
15 you think that is?

16 MR. MEACHAM: I think one of the big benefits of  
17 our program that Steve has mentioned a couple of times is  
18 that this program has been in place since 1990. And we've  
19 had a lot of time. And obviously there's tremendous  
20 growth in the city, and there's tremendous -- and there's  
21 some turnover in the city as well. But we had a long time  
22 to talk to people. And originally we did ask people to  
23 rinse things out. But we're also water conservation  
24 oriented in the city. So we don't tell people to rinse  
25 them out. We tell people to recycle them when empty. You

1 know, to use up all the contents of the container and  
2 recycle the empty container.

3           When we get to schools and we get to places where  
4 we can talk to people face to face, we talk about the  
5 importance of water conservation. We talk about the  
6 concepts of marketing and why it's an issue. We target  
7 peanut butter jars and salad dressing because they seem to  
8 be among the biggest problems. We tell people about why  
9 somebody won't pay for that glass or plastic when half the  
10 weight is not the commodity they're trying to get, but the  
11 residual that's left in the container. But it's been a  
12 process of years and years.

13           You cannot just rely on printed material. And I  
14 would also argue if you put that kind of detail in printed  
15 material, people don't take the time to read it. It's got  
16 to be -- you've got to be willing to do it in your  
17 face-to-face meetings in schools, in the public, through  
18 your customer service representatives. Although we do  
19 more of those long conversations on call backs.

20           One of the things that -- we talk every day with  
21 the hauler. At 2:30 or 3:00 my secretary or I contact  
22 Pacific Waste Services. We ask what the challenging phone  
23 calls of the day have been. We double team them. Steve  
24 and I will call back and follow up on customer service  
25 calls that we think could use a little bit more attention

1 than what our staffs have given. So it takes that kind of  
2 equipment and effort, not just print material.

3 MR. SLOAN: I'm just happy if I can get them to  
4 leave out the deer and the motorcycles. If they leave out  
5 the deer and the motorcycles, we're happy.

6 (Laughter)

7 MR. SLOAN: I'll give you a good example. Is  
8 Nicole still here? No. I guess she's gone. From the  
9 City of El Ceritto.

10 City of El Ceritto is a suburb of Berkeley. And,  
11 you know, the people there -- and I've done a little work  
12 in that city. I think they scrub everything with a  
13 toothbrush. Their recyclables glisten. They have a  
14 drop-off site there that they get about 500 cars a day  
15 into their drop-off site. That's in addition to the  
16 recycling program that the city does which the city  
17 actually performs the collection service. And it's not a  
18 dual stream but a cinco stream -- quintuple stream. It's  
19 a five-stream program. So we've got a lot of separations.  
20 They have incredibly clean material. And, you know,  
21 that's as an example, I think, of people taking really  
22 good care of their recyclables. And they get the very  
23 peak of the market for everything.

24 Kevin has seen their paper. They make true  
25 Number 8 paper at that facility. I mean --

1 MR. KODIS: Yes.

2 MR. SLOAN: At the City of El Cerito?

3 MR. KODIS: Yeah.

4 MR. SLOAN: They make really high grades of  
5 material.

6 On the single stream side, we're really not so  
7 concerned about that. You mentioned peanut butter jars,  
8 that kind of thing. Anything that will get into the  
9 screens or around the head, tail section of the conveyers  
10 and gum that works up, they become maintenance items.  
11 They become wear items. But generally if they just empty  
12 the material and keep out the really gross food waste, the  
13 systems can deal with it.

14 MR. SCHNITZIUS: So the answer is no.

15 MR. SOUTH: You know, Zane, I'd like to say  
16 something unrelated to your question, but it ties into  
17 local assistance. I think the role that you play is also  
18 critical, Zane. And I'd like to call you out. Those of  
19 you who don't know Zane Poulson, Zane has worked in the  
20 southern section for a number of years and has been one of  
21 the best things I think has ever happened to the state.

22 Zane has always taken the time to get out into  
23 the field, roll up his sleeves, understand what the cities  
24 are doing, what the programs are, and not just look at the  
25 papers, but actually physically go out and check the

1 programs. And that type of participation is critical, not  
2 only from the local cities, but certainly from the Waste  
3 Board staff. And I think that's a key element of the  
4 team.

5 And, Zane, I think you represent -- at least I  
6 can tell you from a hauler and processor, you represent  
7 what we're always hopeful of is a dialogue and an  
8 interaction and a commitment. And that's -- the role you  
9 play is absolutely critical as well.

10 (Applause)

11 DEPUTY DIRECTOR SCHIAVO: I'll ask one more  
12 question regarding team effort. In your particular  
13 instance it's obvious it's working really well because you  
14 all work well together in making this happen. And the  
15 City appears to have the will to call people on their  
16 contamination. And in other communities I've seen that  
17 hasn't been the case, and the City hasn't followed through  
18 on contamination issues and following up with the  
19 citizens.

20 Has that usually been contractually, or is that  
21 just done by your mutual cooperation? How does that  
22 element work in implementing some of these programs in  
23 different jurisdictions?

24 MR. MEACHAM: Do you want to tell them how much  
25 they pay us?

1           DEPUTY DIRECTOR SCHIAVO: Be candid.

2           MR. MEACHAM: First of all, I don't want to give  
3 the impression that we catch every item in every recycling  
4 bin. That's wrong. This is kind of like a traffic cop  
5 catching people running through a red light.

6           We create a deterrent. The recycling rangers are  
7 each out there a couple of hours a day, and it takes them  
8 a week to two weeks to cover the entire route. They don't  
9 cover the entire route every single day. People know  
10 they're out there. We not only do it for compliance with  
11 proper set-outs, but we do it with anti-scavaging and  
12 things like that as well.

13           When we created our program originally a few  
14 years ago, we looked at the contract, and the private  
15 hauler imbedded in the system -- used to do the public  
16 education. And the city thought it was not the best thing  
17 to hold the private hauler solely responsible for public  
18 education. So we took that back. We took a small -- I  
19 thought a small, but Jerry thinks a significant -- portion  
20 of the rate back. And they make a payment to us each year  
21 to help pay for the cost of the recycling rangers, a lump  
22 sum cash payment.

23           In addition to that -- okay. We can talk about  
24 the franchise fee and the signing bonus and all that stuff  
25 later. In addition to that, we have a AB 939 fee. As

1 most of you know, AB 939 allowed for the establishment of  
2 a fee for the cost of creating, developing, and  
3 implementing recycling programs.

4           And when I was with the city of Long Beach a  
5 number of years ago, I think we put the very first one in  
6 place in the state. And that was something I did pretty  
7 quickly in Chula Vista. I believe it's 2 percent of the  
8 rate. It generates roughly \$300,000 a year. And that's  
9 what pays for these programs. It's not free. It does  
10 cost money. And -- but I think that the rate payers are  
11 getting their bang for their buck.

12           As Jerry mentioned, we not only continue to be  
13 one of the lowest rates in the country, but a couple of  
14 years, not just 1994-95 when newspapers went through the  
15 roof. But a couple of years we actually made revenue or  
16 generated revenue, which by contract goes back into our  
17 program as well.

18           MR. SCHNITZIUS: Certainly when the communities  
19 or when the municipalities and the hauler are working  
20 together, the first thing you have to do is come to a  
21 common ground. And the common ground was Michael and I  
22 sit down and say, "This is what we both want. We have our  
23 differences on how we're going to get there, but let's  
24 agree with what we can agree with." We started in the  
25 middle and worked backwards from that end.

1           It's important -- it's essential that you work  
2 like that. And this is a good relationship, but I don't  
3 want you to think -- it's like a marriage. It hasn't  
4 always been so pleasant.

5           MR. MEACHAM: Not like my marriage, which is  
6 always pleasant, in case my wife's listening.

7           (Laughter)

8           MR. SCHNITZIUS: Both of us respected what we  
9 were going for and we were looking for the end product.  
10 And I think we kept our course straight, and we achieved  
11 it. And it's just dealing with each other out of common  
12 respect for the goal.

13          MR. SOUTH: I'd like to give you a little bit of  
14 different twist to that. I think the franchise  
15 relationship that every city has, if they have franchise  
16 haulers, represents its own nuances and unique aspects and  
17 things there to handle some of it.

18          The other thing that's out there now that people  
19 need to be aware of -- and we talk about it all the  
20 time -- but the biennial reviews are somewhat akin to what  
21 we deal with on the bid inspections on the truck side.  
22 The bid inspections are biennial terminal inspections  
23 performed by the California Highway Patrol. When they  
24 originally came out, most people were horrified of the  
25 process. We didn't like it. We were going to fight it.

1 They were going to come in every year. They're going to  
2 check out what we're doing, see what the process is,  
3 what's good, what's bad. They may ground your fleet. We,  
4 of course, were horrified.

5 We got into the process. We discovered we  
6 actually liked it. We liked it because an outside set of  
7 eyes came in, confirmed what we were doing. We became  
8 safer. We became safer as a company. More importantly,  
9 we became safer as an industry.

10 I would draw a parallel to the biennial reviews  
11 in the same manner. You've got not just the franchise  
12 collection relationship, which is somewhat akin to a  
13 maintenance relationship, an ongoing review, but you now  
14 have an outside agency, the State, again in that same  
15 role, coming in and taking a look at what the programs  
16 are, how you're enforcing them, what the participation  
17 rates are, what the good points are, what the points of  
18 improvements are. And it's very much, I think, a parallel  
19 to the bid inspection. And that ensures that the dialogue  
20 that exists in a franchise level continues and is probably  
21 enhanced.

22 And so, again, the biennial is here to stay. I  
23 think a lot of people are confused, perhaps, in the  
24 industry -- not municipalities -- that after 2000 that it  
25 was it. It went away. '99-2000 is done. And it is an

1 ongoing process, and that dialogue -- everybody needs to  
2 come back to the table. And if not, you're at least going  
3 to come back to the table for those. And I think that  
4 offers another opportunity that's somewhat akin to the bid  
5 inspections.

6           DEPUTY DIRECTOR SCHIAVO: Looks like we're  
7 getting near the end. Everybody looks pretty tired. It's  
8 been a lot of excellent information. What I'd like to do  
9 before we summarize everything is Michelle's put up here  
10 so all of you can see our website. If you have any  
11 comments you would like to submit to us or suggestion for  
12 future topics, go ahead and use that web address. And for  
13 you people out in web land right now, I'll read this out  
14 and then we'll summarize. It's [dplaola@ciwmb.ca.gov](mailto:dplaola@ciwmb.ca.gov).  
15 And, again, it's [dplaola@ciwmb.ca.gov](mailto:dplaola@ciwmb.ca.gov). Thank you.

16           I was going to have you do it.

17           Steve is going to summarize.

18           BOARD MEMBER JONES: Actually, I'm not going to  
19 summarize it. I'm going to let Pat summarize it. But I  
20 do want to just say a couple of things.

21           Number one, I'm very, very thankful to the people  
22 on this panel for what I think was a very good discussion  
23 about an awful lot of issues we're going to face from now  
24 on. So on behalf of my fellow Board members from the  
25 Waste Board, I want to thank all the participants for

1 taking time to share your experiences with us. I think it  
2 was real valued, so we appreciate it.

3 (Applause)

4 BOARD MEMBER JONES: I want to remind everybody  
5 this was not a sales pitch for single stream. This  
6 actually was a result of 60 jurisdictions who have just  
7 recently decided they were going to do single stream as  
8 part of their SB 1066. And what are the things you've got  
9 the deal with?

10 One of the questions that was never asked that I  
11 almost was going to ask but I figured, why draw it out?  
12 We had -- I don't think he's here anymore. We had some  
13 folks that were identified by Steve South in the audience  
14 that actually responded to RFPs that said they would be  
15 processing a waste stream that had less than 10 percent  
16 residual from a single stream. And they went in with that  
17 expectation. What they ultimately had was about 35  
18 percent. And after they put in all that equipment, they  
19 got a seize and desist order.

20 So you know, you need to take this seriously.  
21 You need to understand that it is a two-way street.  
22 People invest a lot of money to try to make these things  
23 work. And it takes cooperation on all levels to make them  
24 work.

25 I think that person actually left. But I know he

1 wasn't very happy when he was in front of our Board  
2 getting a permit, something he didn't think he was going  
3 to ever need.

4           But, in fact, that's a fact of life. And we just  
5 have to be smart about what we're doing. It took a lot of  
6 work when we started putting programs out. Believe me, it  
7 took a lot of work. And it's going take work, not so much  
8 to get the glass out. I think we'll figure out  
9 mechanically how to get the glass out. It's going to be  
10 how to get the garbage out and what it's going take to do  
11 that.

12           But this was not a sales pitch for single stream  
13 as much as it was it's here to stay and we better get  
14 smarter about how we're going to do it. Because I will  
15 tell you like I told you at the beginning of the meeting,  
16 a city comes in front of me for their biennial review --  
17 if I am here after the end of this year -- and they said,  
18 "We did a single stream," and they have huge residual  
19 because nobody's paying attention, they're going to have a  
20 hard time getting my vote.

21           So I do appreciate all of your input from every  
22 one of you, and I really appreciate the exchange. And I  
23 appreciate the audience asking its questions. So for  
24 those of you on the Internet, you missed a pretty good  
25 day. So go ahead.

1           DEPUTY DIRECTOR SCHIAVO: Just want to find out,  
2 do any of you want to make any summary comments? Okay.  
3 Great.

4           You know, Steve said it all. Just want to thank  
5 you all for taking time out of your day. It's a long day  
6 we had here. There's a lot of information. As you heard  
7 several times today, this topic would require a whole  
8 other workshop. Again, think about what you heard.  
9 Submit your interest to us, and then we'll see what we can  
10 do to make that happen in the near future. So, again,  
11 thanks a lot.

12           (Thereupon the Single Stream Collection of  
13           Recyclables Workshop adjourned at 2:33 p.m.)

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1 CERTIFICATE OF REPORTER

2 I, TIFFANY C. KRAFT, a Certified Shorthand  
3 Reporter of the State of California, and Registered  
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5 That I am a disinterested person herein; that the  
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10 I further certify that I am not of counsel or  
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12 way interested in the outcome of said hearing.

13 IN WITNESS WHEREOF, I have hereunto set my hand  
14 this 15th day of April, 2003.

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